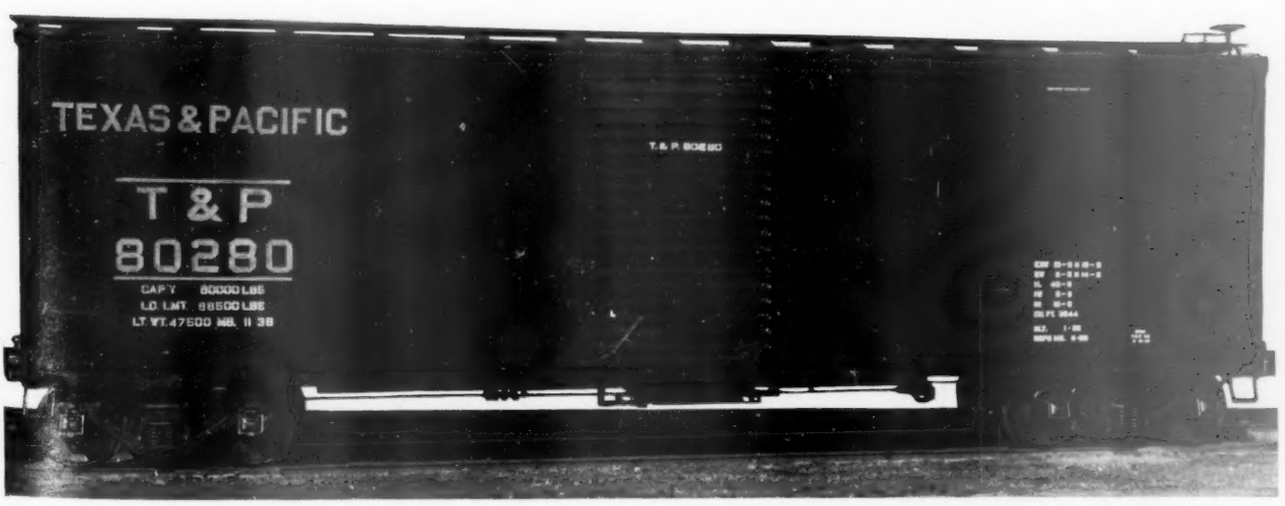
JANUARY 23, 1937

Railway Age

Founded in 1856

400 Automobile Cars—Modern when built in 1925

Again Modern Box Cars in 1936
after application of Youngstown Steel Sides and Doors



Average light weight when built 48,800 lbs.

Average light weight when rebuilt 47,677 lbs.

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Railway Age

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Vol. 102 January 23, 1937 No. 4

In This Issue

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

The Week at a Glance

ST. LAWRENCE DITCH: The United States government has renewed its discussions with Canada on the possibilities of putting through the treaty to displace the railroads with "cheap" water transport via the St. Lawrence. Meantime the "March of Time" is circulating a movie "short" of this proposal in which the Chief of the Army Engineers appears with customary special pleading for the project. (Gen. Hugh Johnson recently quoted the late Gen. Goethals, builder of the Panama canal, as wondering how a competent engineer would hazard his professional reputation by okaying the St. Lawrence ditch.) Meantime, our advices are that Canadians are not warming up to the proposal, despite the blandishments of Washington.

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CARLOADINGS: In the week ended January 9 loadings totaled 699 thousand—14 per cent above 1936 and 19 per cent above the preceding week.

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RECAPITALIZE C. N. R.: In the Speech from the Throne at the opening of Parliament in Ottawa last week (in which the Government announces its legislative program), a promise was made that bills would be introduced in the present session to write more than a billion dollars of liabilities out of the C. N. R. balance sheet —securities declared worthless by arbitrators and entries covering advances by the Dominion government to cover deficits. Recommendations to this effect were made to the preceding Government in Canada by a firm of accountants, but no action has been taken to date. Our Ottawa correspondent predicts a lively debate in Parliament when specific legislation is introduced.

●

BUS GROSS DROPS: In a decision of the New York Public Service Commission refusing permission of the Central Greyhound Lines of New York to merge with a Delaware corporation of the same name, it was disclosed that in the first four months last summer after the railroads reduced their fares, the Central Greyhound Lines' gross revenues fell off more than $100,000 a month, despite an increase in traffic.

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INDUSTRY'S STRAW BOSSES: Industry's policy toward the railroads is to a large extent being determined by industrial traffic managers—who have no responsibility for industrial prosperity but are concerned only in cheapening rates. By allowing straw bosses, rather than chief executives, to determine such policies—the leading editorial herein points out—industry may lose a great deal more in sales of materials to the railways than it "saves" in freight rates.

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SUN VALLEY LOGIC: The Union Pacific's brilliant new winter sports center in Idaho is described in an article herein, and an editorial discusses the shrewd business calculations which underlie a development of this kind, namely, that when devices are hit upon which stimulate winter travel, the railroads, because of weather conditions, are usually the principal beneficiaries.

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TRUCK CONTROL BOGS DOWN: The I.C.C. is swamped with work in attempting to carry out the provisions of the Motor Carrier Act—and, according to a summary of these activities published herein, it is hampered by lack of adequate funds. Safety work, accounting, enforcement—these are the functions which are suffering from the overload and inadequate appropriations. But the I.C.C. is optimistic that it will be able to dig out from under, and is firm in its conviction that the Act is sound and workable.

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RIP VAN WINKLE: Examiner Mohundro thinks Congress ought to give the I.C.C. regulatory power over all railroad investments. He arrives at that conclusion, having, by 1937, come around to the opinion that numerous investments made by the New Haven prior to 1913 were unwise. Such I.C.C. criticism, proceeding from hindsight, always shows managerial acts in the worst possible light. But do I.C.C. decisions, looked at in the same light, make any better showing? Have investors lost nothing in the purchase of securities, the issue of which the I.C.C. has approved?

●

PENALTY TAX: Chairman Carroll Miller of the I.C.C. had an audience of the President on January 14 on the subject of the recommendation that railroads setting aside sinking fund reserves be not subjected to the penalty tax on earnings not distributed to stockholders. The Secretary of the Treasury was on hand at the confab also.

●

WHEELER PROBE QUIET: The Wheeler committee's investigation into railway finance suspended hearings January 15, to resume again January 25—the reason being that the committee's sleuths got hold of a trunkload of documents from the New York Stock Exchange, access to which had been previously denied them. The intervening period is doubtless being used by the worthy statesman from Montana and his assistants in examining these documents for their possible "pay dirt" yield. Mr. Wheeler says the documents have to do with listing practices of the "big board."

●

TRUCK DRIVERS' HOURS: After reading testimony of truck operators, and drivers testifying in the presence of their employers, as to the effect of long driving hours on the highway, one comes to the conclusion that, from such evidence, the longer a driver is on duty, the less likely he is to have an accident. Solving the problem of highway accidents ought to be easy, if this is true—just require every driver who reports for duty to do 12 or 16 hours before he rests. And if that doesn't work, then boost the hours up some more.

B. & O. BUS BUSINESS: Baltimore & Ohio's train-replacement bus service in West Virginia is described herein. This comprehensive service, employing 36 vehicles, is closely integrated, with its center in Clarksburg, and is managed by a railway officer.

●

LOCO CASUALTIES LOWER: The report of the Bureau of Locomotive Inspection, summarized herein, shows an increase in locomotive accidents (year ended June 30 last), but a decrease in persons killed and injured. Defective locomotives discovered increased, but percentage remained same. The Bureau has completed 25 years of service—in 1912, 90 persons were killed in boiler accidents; in 1936, only 10.

●

DEFECTIVE ROLLING STOCK: The annual report of the Bureau of Safety, I.C.C., summarized herein, for the year ended June 30 last, shows safety appliance defects at slightly less than 29 per 1000 units inspected, as compared with 26 per 1000 in 1935. Rate of application of A B brakes and elimination of arch-bar trucks must be stepped up, Bureau warns, and calls attention to wheel failures' increasing importance as accident cause. Six passengers killed in train accidents in first half of 1936; none in that period of 1935. Total highway crossings decreased 1,184 during year and 72 derailments were caused by motor vehicles.

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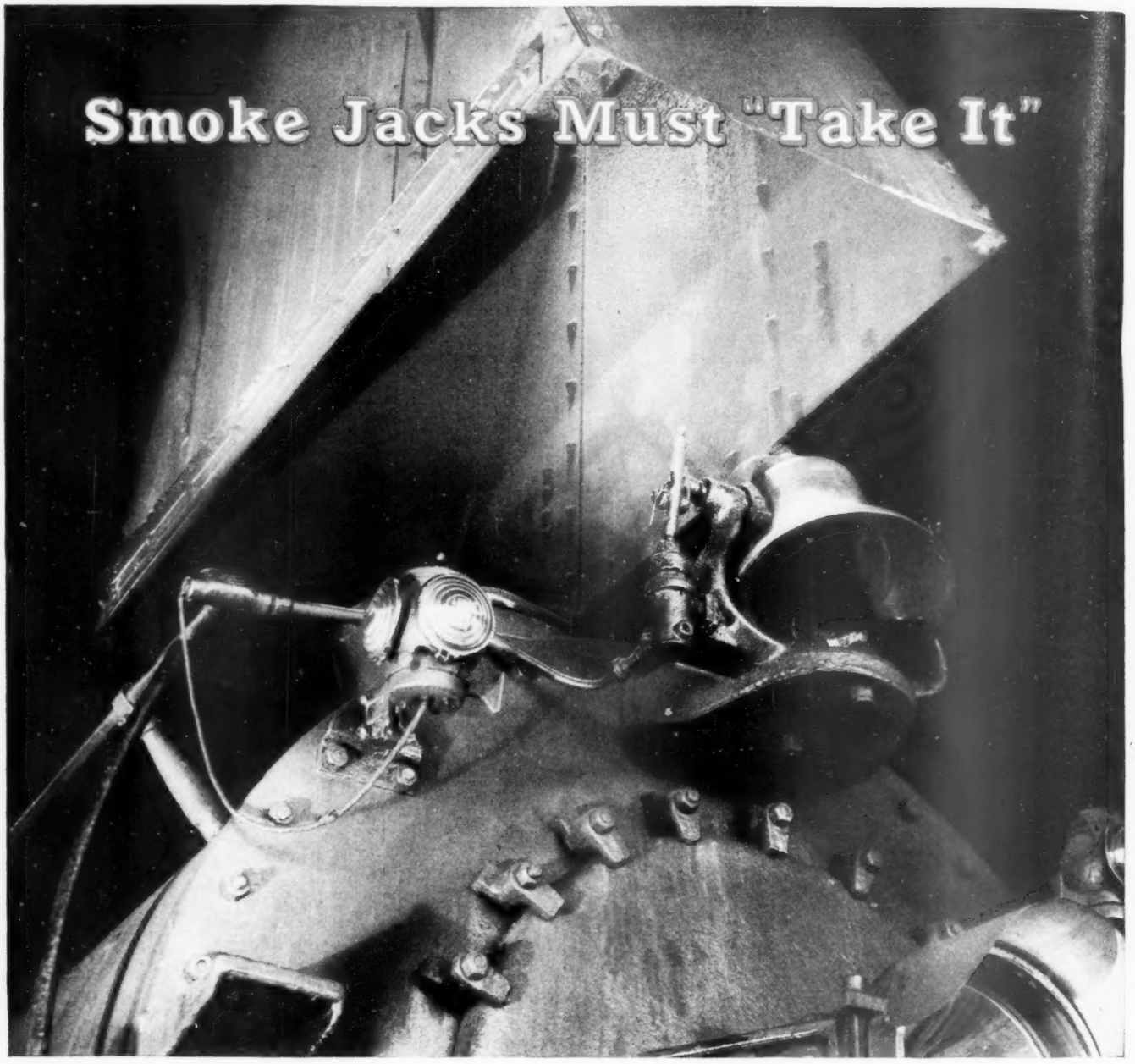
DECEMBER EARNINGS: Preliminary figures from roads earning 81 per cent of operating revenues, reporting to the A.A.R., show gross for December up 23 per cent over 1935 and less than 1 per cent under December, 1930. Passenger revenues were up 10 per cent in the East, 17 per cent in the South and 18 per cent in the West. Freight revenues in all districts were above 1930—passenger revenues down in all of them.

●

EQUIPMENT INQUIRIES: Reported in the news columns elsewhere in this issue are inquiries for 3,177 freight cars. In addition the New Haven trustees have asked the permission of the federal court to order 55 passenger cars. Orders for 3 Diesel-electric locomotives are likewise reported. The U. P. contemplates ordering 25 articulated 4-6-6-4 locomotives and 2,500 additional freight cars have been ordered by the B. & O.

●

L.C.L. EXPERIMENT: The Canadian National has conducted an intensified experiment in the handling of l.c.l. in a limited area, in which l.c.l. methods were thoroughly revised—with new rates, lower packing requirements, expedited delivery, station-to-station trucking. The result has been a large increase in traffic in this area—the details of this plan being described in an article elsewhere in this issue.



Have you ever watched a smoke jack drip water after an engine backed out of the roundhouse on a cold day? » » » That is only a part of what a smoke jack must withstand. » » » Rain, snow, sleet or sunshine on the outside, hot sulphurous gases and liquids on the inside—there is constant corrosive action and temperature changes tending to quick deterioration that causes early replacement. » » » In this service Toncan Iron*, because of its high resistance to corrosion, gives unusually long, economical service. » » » It is equally economical in any roundhouse or shop service, such as roofing, side walls, ducts or piping—wherever corrosion resistance is a factor. » » » Send for further information. Address Dept. RA.

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RAILWAY AGE

Industry's Responsibility For Restoring Prosperity

> Are there costs which one industry can throw off upon other industries, or one individual throw off upon other individuals? Are there national overhead costs which are not borne directly by the business enterprises which are responsible? This is not a business problem, in the commonly accepted sense, but rather a problem for the statesman or the philanthropist. But it is rapidly becoming evident that statesmanship and philanthropy alone cannot solve it, and that unless business takes it up as a business problem it will not be solved.
>
> It is not necessary for business to become philanthropic and unbusinesslike; it is merely necessary to look at the productive machine as a whole and consider the effects things have on its aggregate efficiency. If a national chamber of commerce is possible as an organ of business, the corresponding nation-wide view of the business organism should also be possible.
>
> *From "Economics of Overhead Costs" by John Maurice Clark*

The book from which the above quotation is taken, by one of the country's most brilliant and far-sighted economists, was published 13 years ago. In it will be found an analysis of modern industry as it actually is, and not merely as it is popularly supposed to be. There is precious little free competition left in the sense which that term is used by economists (i.e., with a large number of small producers, no one of which controls any appreciable share of the market). Under such competitive conditions business and industry do not need any regulation, or any particular altruism; and the public interest is amply protected when each individual producer pursues his own profit as best he can.

Prices Fixed by Big Business, Not Competition

Under these conditions (still to be seen in agriculture, if we omit the crop control activities of the government), no producer has any control of market prices. But do these conditions obtain in any major industry today where large concerns are the dominant factor? Obviously they do not. In automobiles, steel, copper, and any number of important industries, prices are determined—perhaps not by any one firm, but by the policies which prevail with a comparatively small number of large producers. The price of any important commodity or service is socially important, because price determines the relationship of one group of commodities and its producers to all other commodities and their producers. Prices are the points at which the parts of the economic machine are joined to each other. Given free competition, these points of meeting will find natural positions which will assure an equilibrium in the economic machine so that it can function efficiently. But with limited or imperfect competition—which is the actual situation in most of industry today—the industrial executives who formulate price and production policies for their own businesses also affect, and hence become responsible, at least in part, for the functioning of the economic machine as a whole. If equilibrium is established, it has to be established voluntarily by someone. If business leaders will not accept the responsibility, then the government will do the job for them.

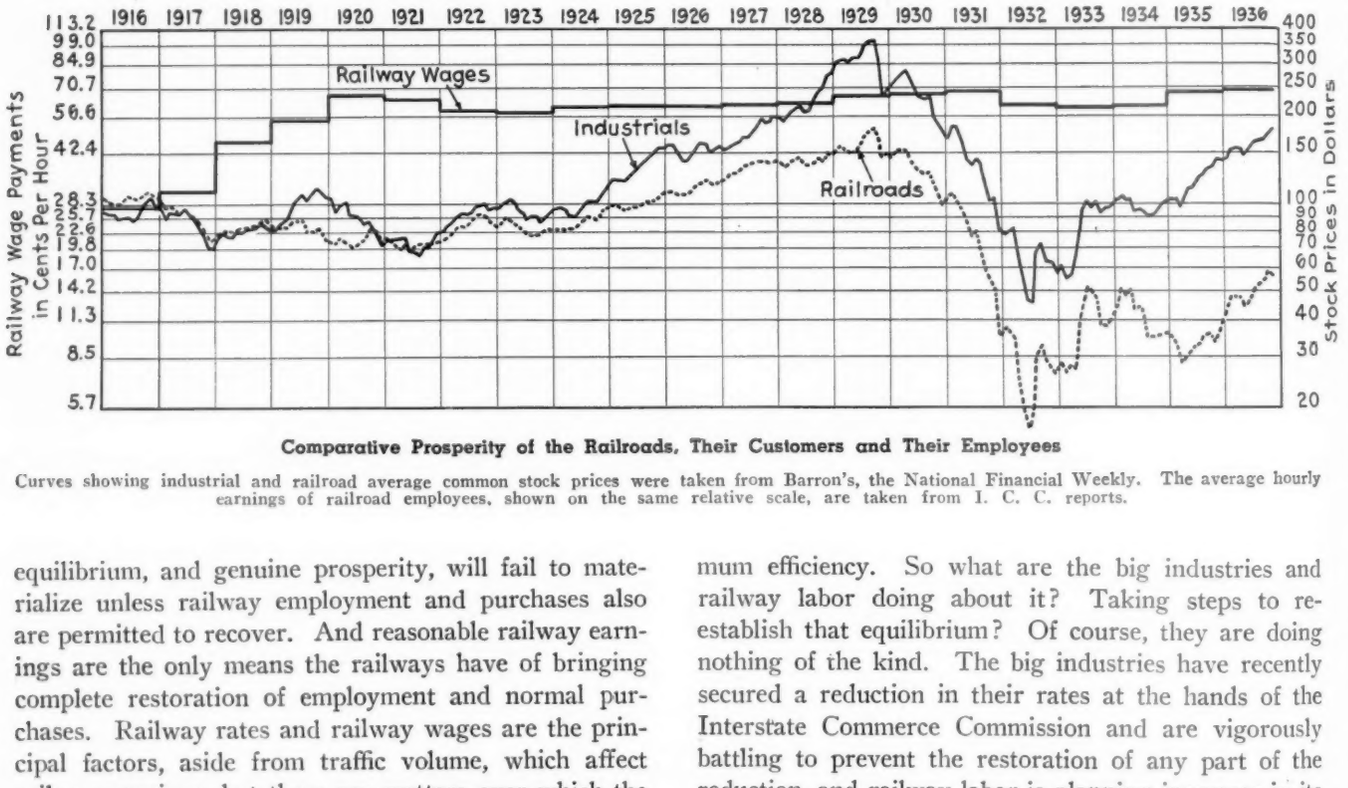
It is no injustice to lay most of the economic ills through which we have been passing to failure on the part of business leaders to recognize the changes in the nature of the economic organization which make it necessary for large-scale industry to base its policies primarily with a view to their effect on the national economy. If large-scale industry refuses to accept this responsibility then there can be no escaping government regulation or government ownership. No society can trust the formulation of policies affecting that society as a whole to individuals who are going to do their deciding wholly in their own immediate selfish interest, and frequently to the detriment of society as a whole. *In the absence of free competition "laissez faire" does not safeguard the general welfare, and business leaders will either make their decisions on an ethical basis or their right to make decisions will inevitably be curtailed.*

Industry's Short-Sighted Policy Toward Railroads

The managements of the railroads and the utilities have already had their decision-making prerogatives largely removed, and, as we pointed out in these pages in our January 16 issue, there is no reason remaining for distinguishing, in the public interest, between the railroads and any other large-scale enterprise in the application of government regulation. Whether other large-scale industry will be brought under regulation or not would appear to depend upon whether it sees the

light, and begins to formulate its policies with the economy as a whole in mind. And certainly in the formulation of business policies which will foster general prosperity no one factor is of more importance than one which will assure the railways of a "living wage." Production and employment in the heavy goods industries cannot be maintained at a normal level unless the railways make a normal volume of purchases for replacements and improvements, and such purchases can only be made when the railways are given an opportunity to make some money. The demand by industry for rate reductions at the very time when business was beginning to benefit from increased buying by the railroads is an example of the search for immediate profit regardless of social consequences which business must overcome if it wishes to escape eventual socialization.

Balance is being restored in the national economic machine, and consequently economic conditions are improving, largely because of the restoration of agricultural purchasing power. But complete restoration of



Comparative Prosperity of the Railroads, Their Customers and Their Employees

Curves showing industrial and railroad average common stock prices were taken from Barron's, the National Financial Weekly. The average hourly earnings of railroad employees, shown on the same relative scale, are taken from I. C. C. reports.

equilibrium, and genuine prosperity, will fail to materialize unless railway employment and purchases also are permitted to recover. And reasonable railway earnings are the only means the railways have of bringing complete restoration of employment and normal purchases. Railway rates and railway wages are the principal factors, aside from traffic volume, which affect railway earnings, but these are matters over which the railway managements have been largely deprived of control. The power to make decisions regarding them in the interest of the national welfare as a whole is almost entirely in the hands of shippers, organized railway labor and governmental authorities.

Comparative Prosperity of Industry, Railway Labor and Railway Owners

The unhealthy lack of balance between the economic position of the railways on the one hand and their customers (whom they in turn patronize as buyers) and their employees on the other is strikingly shown in the accompanying chart. The curves of railway and industrial stock prices were taken from Barron's, the National Financial Weekly, with the hourly earnings of railway employees superimposed. Going back to 1916, it will be seen that the average prices of railway and industrial stocks were approximately equal, at about 100, railway stock prices being slightly higher than industrials. Since 1921 industrial shares have been continuously higher in price by an ever-widening margin, than those of the railways. From approximate equality with industrials at 100 in 1916, by the end of 1936, the average price of railway shares had declined to less than 60, while that of industrials was over 180. Similarly with railway wages: beginning at 28.3 cents per hour in 1916, in 1936 they averaged 68.7 cents, an increase of 143 per cent. Since 1916—railroad stock prices off over 40 per cent, industrials up over 80 per cent and wages up 143 per cent.

Obviously there is no equilibrium here such as is required for a national economy to function at maximum efficiency. So what are the big industries and railway labor doing about it? Taking steps to reestablish that equilibrium? Of course, they are doing nothing of the kind. The big industries have recently secured a reduction in their rates at the hands of the Interstate Commerce Commission and are vigorously battling to prevent the restoration of any part of the reduction, and railway labor is planning increases in its hourly wages by practically every conceivable method.

Why Let Traffic Managers Determine Industrial Policy?

The failure of the leaders of organized labor to act in a more social-minded manner is perhaps not to be wondered at because most of them have gone on record in favor of government ownership of the railways anyhow. But the attitude of big business toward the railway rate structure is incomprehensible under any other supposition than that industrial traffic managers, rather than industrial executives, are responsible for industry's

policies toward the railways. If that be the case, and we repeat that no other explanation seems possible—because it would not make sense that the responsible heads of steel, cement, mining and manufacturing should not realize the importance to their own prosperity of relatively prosperous railways—then it is an unhappy failure on the part of industrial managements and one which, in their own interest, ought to be speedily corrected.

A steel business or a coal business or any other large enterprise is not operated so that any one department in the concern may make a record for itself at the expense of other departments or of the enterprise as a whole. Rather it is the function of the management to require each department to subordinate its own glory to the efficient performance of the enterprise as a whole. The sole exception to this general rule seems to be the traffic department. There are many industries, the heads of which are as appreciative as anyone could be of the importance to them of railway prosperity under private ownership, and yet the traffic managers of these same industries—desirous of making records for their departments—may be the worst enemies the railroads have to meet. They try by every conceivable method to beat down rates before the Commission and they are the mainstays of subsidized highway and waterway competition.

Isn't it about time for responsible chief executives of industry to take over the control of industry's policies toward transportation? The traffic manager has no responsibility for general prosperity—the chief executive has. When decisions are to be made regarding the railroads which will vitally affect industrial prosperity, why trust them any longer to individuals who have no concern for general prosperity?

How Traffic Managers May Curtail Sales

"Business Week" recently quoted some shipping interests as being quite complacent over the $12,000,000 which surcharge cancellation will save them this year. It happens that these same shipping interests are also the beneficiaries of large railway orders, when the railways have any money to spend—and the "savings" its traffic departments are making may be at the expense of profits which larger railway orders would bring this industry—orders which moderate railway prosperity would assure. Departmental zealots are often valuable men. We are not criticising them. We have even heard of railway supplies being shipped by barge to save freight charges. Where things like that happen, it is to administrative management that we must look for a remedy. If the management says: "Save on your freight bills, but not to the extent of injuring our business as a whole," then the traffic managers will have a different goal to aim for, and they will probably do an excellent job of it. Right now most of them seem to be working under an order to drive down freight charges with no thought to consequences.

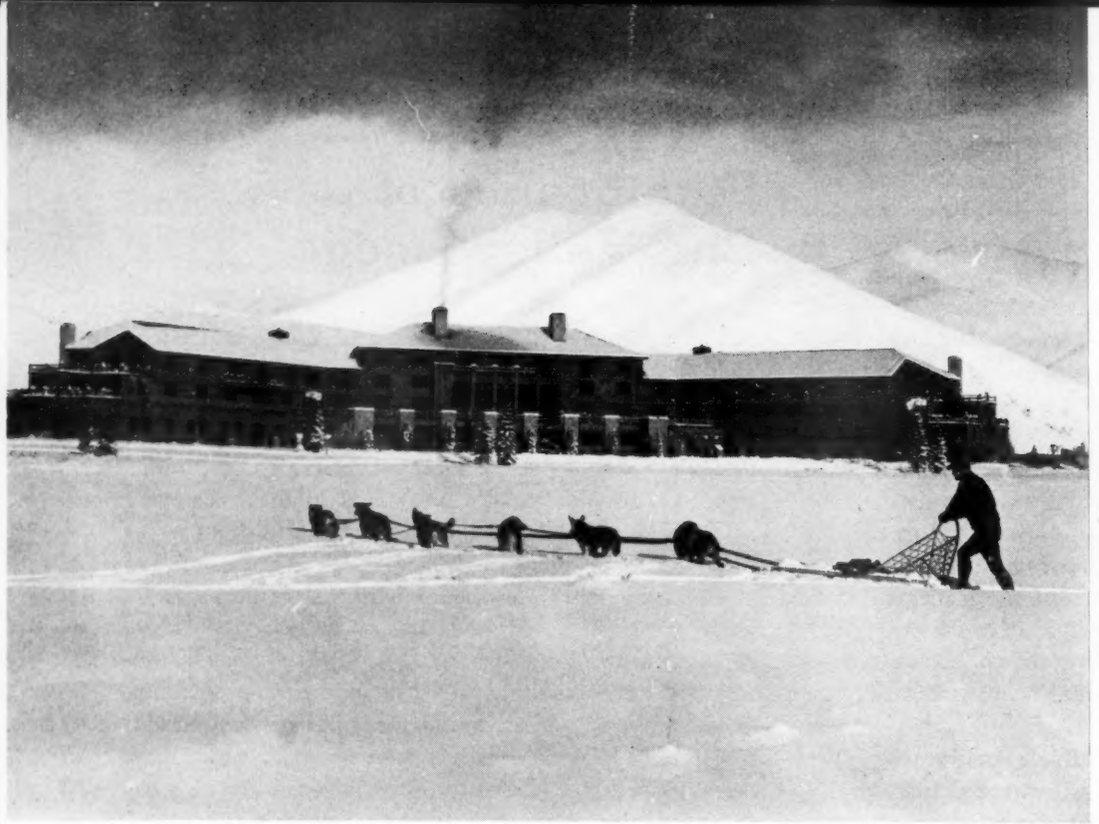
Significance of Sun Valley Lodge

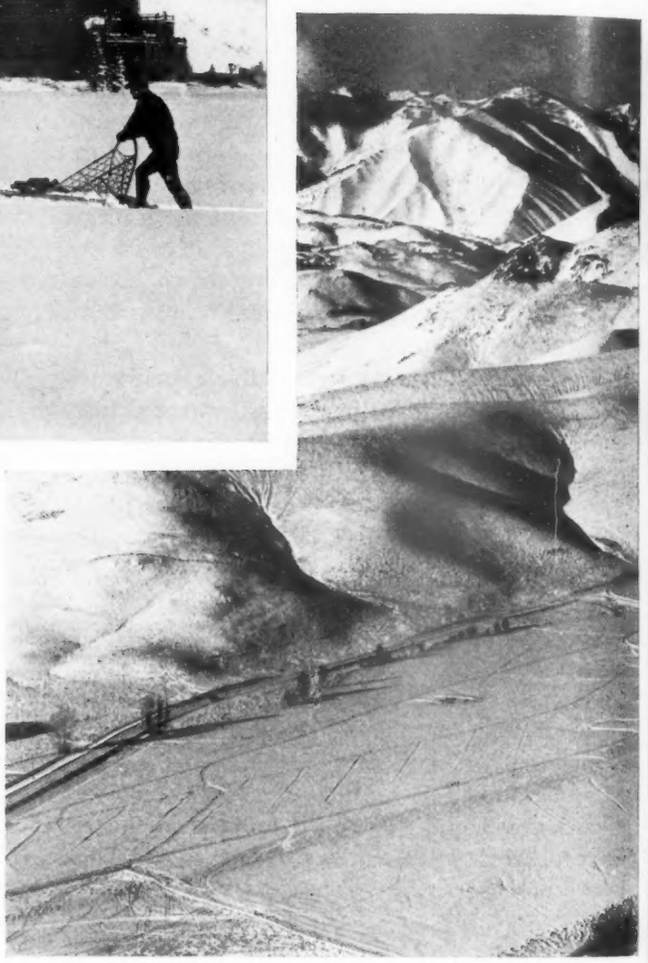
The winter sports center which the Union Pacific has just completed in the Idaho mountains, and which is described elsewhere in this issue, constitutes a type of development that is worthy of careful consideration by those interested in promoting travel by rail. In fact, there are a number of implications to be considered. In the first place, Sun Valley Lodge, possessing as it does advantages comparable to those found at winter sports centers in the European Alps, comprises a sound argument for the spending at home of funds that otherwise would find their way into the coffers of ocean transport lines and of foreign pleasure resorts. Of the resulting increase in domestic spending by devotees of winter sports the railroads are certain to be large beneficiaries. American railroads may, therefore, explore with profit possibilities for encouraging in other ways the diversion into domestic channels of funds that otherwise would be spent in travel abroad.

But what is probably more important than the foregoing consideration is the fact that the railroads as a whole, as the Union Pacific has done individually through its winter sports development, can create new demands for rail transportation by stimulating interest in those pursuits which require travel.

However, this is reiteration of a truth that has already been recognized and applied by the carriers to a certain extent. The western lines have for years encouraged travel to vacation centers in the mountain states by advertising the scenic beauties and recreational advantages of that region. Likewise, a number of the eastern roads have undertaken to stimulate interest in winter sports, thereby creating a demand for the so-called "snow trains" which are operated between large eastern cities and nearby winter sports centers. Incidentally, the particular wisdom of stimulating travel during the winter months lies in the fact that, because of the difficulties and uncertainties attending highway travel during that period, the railroads are certain to receive a large share of any increase in the total volume of travel that may take place.

The extent to which travel may be increased, exclusive of the fluctuations that occur with varying business activity, depends in large measure on the degree of initiative and ingenuity applied by the railroads to the devising and publicizing of forms of activity which will involve the need for railroad travel on the part of those participating. Apropos of this statement, it is encouraging to note that, at the time of this writing, virtually all available space at Sun Valley Lodge has been reserved for weeks in advance, many of the reservations being made in behalf of individuals whose sojourn at the lodge will involve traveling from points as distant as New York. Obviously, the railroads will handle all of this business.





Left—In Outward Appearance the Lodge is Designed to Harmonize With Its Rugged Surroundings. Below—General View of Sun Valley From the South, Showing the Lodge on the Floor of the Valley and the Sawtooth Mountains in the Background

Located in Idaho mountains, new development includes hotel for 250 guests and offers skiing, skating, outdoor swimming, tobogganing, sledding and sun bathing—Ski lifts are unusual feature

Union Pacific Creates Elaborate

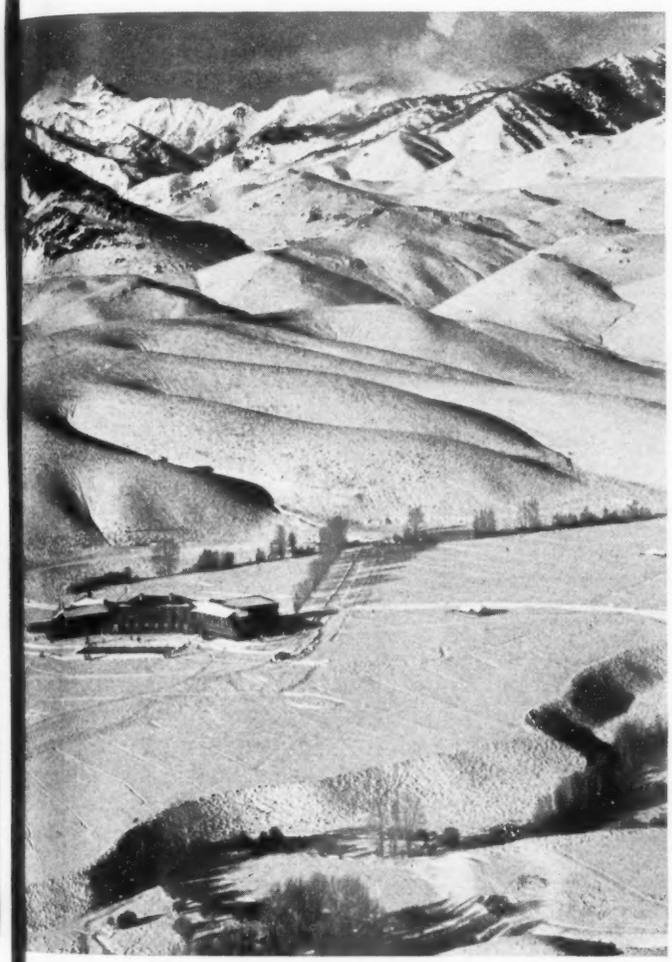
Winter Sports Center

A WINTER sports center, embodying all the recreational, scenic, climatic and other advantages heretofore considered to be possessed only by European resorts, was opened in the Sawtooth mountains of Idaho by the Union Pacific on December 21. Designed to appeal strongly to devotees of all forms of winter sports, particularly skiing, the new development, known as Sun Valley Lodge, is built around an elaborately-appointed hotel with accommodations for 250 guests, and comprises, in addition, an ice skating rink, an out-door swimming pool and sun-bathing facilities. Most unusual among the facilities provided, however, are a ski tow line and two ski chair lines by means of which skiers are transported up the mountain slopes, thus relieving participants in this sport of the exertion ordinarily entailed in climbing to the tops of the ski runs.

While the excellent skiing conditions at the lodge are expected to constitute the greatest attraction for winter sports enthusiasts, facilities are also available for tobogganing, bob sledding, dog sledging and cutter riding, as well as for skating, swimming and sun bathing. Three-sided, open-top "igloos," constructed of ice, are provided for the use of patrons who wish to take sun baths. While protecting the sun bathers from the wind, the ice walls of the "igloos" are said to intensify the rays of the sun by refraction, thereby enhancing their beneficial qualities.

Chosen as the site of the lodge because of a combination of topographic and climatic features which render it ideally suited for the enjoyment of winter sports on a diversified scale, Sun Valley is said to compare favorably with winter sports centers in the European

Alps. Located in south central Idaho near Ketchum it is flanked on the north by the lofty Sawtooth mountains, an east and west range, which shelter it from cold northern winds. It is because of this protection, in combination with a brilliant sun, that it is said to be possible in this locality to indulge with entire comfort in mid-winter sun-bathing, swimming in the out-



door pool as well as skiing while stripped to the waist.

Conditions are particularly ideal for skiing. With the floor of the valley at an elevation of 6,000 feet, and with the surrounding peaks rising to elevations of as much as 12,000 ft., ski runs with a vertical height of 2,000 ft. or more and several miles in length are readily attainable. A feature of the mountain slopes in this region that renders them particularly attractive to devotees of skiing is that, while rugged, they are largely devoid of timber so that long unobstructed ski excursions are possible. From December to April the mountain slopes in the vicinity of Sun Valley are covered with a deep blanket of "powder" snow of uniform thickness, there being little drifting because of the absence of wind.

Accommodations

Ketchum is at the end of a branch which extends north 69 miles from Shoshone, Idaho, a point on the Union Pacific's main line between Omaha, Neb., and Portland, Ore. Sleeping cars are operated every Friday night from Chicago and Los Angeles directly to the Ketchum station, from which point patrons of the lodge are transported 1½ miles to the hotel by bus. At other times buses meet all trains at Shoshone and carry patrons directly to the lodge over a newly-constructed paved highway.

The lodge at Sun Valley is designed to accommodate 250 guests. These accommodations comprise 96 large double rooms, 20 medium size double rooms and 28 small double rooms without baths but possessing lavatories and closets. Of the small double rooms 15 constitute bachelor quarters with a club type bath and bachelor lounge. There are also 56 rooms for housing hotel employees.

The hotel, which is arranged with its longest dimension lying in an east and west direction, embodies a main section, 154 ft. long and 50 ft. wide, and four wings, each about 130 ft. long and 47 ft. wide, which extend diagonally from the corners of the main section. Four stories high in the central section and three in the wings, it has a basement under all parts.

On the first floor of the central section, which contains the main entrance in the center of the north wall, the facilities include, in addition to the lobby and hotel office, a club room with a dance floor and band stand, a game room, the house physician's office, a ""beauty" shop, a ski outfitting shop, and a ski room containing facilities for the waxing and repair of skis. The ski outfitting shop is operated by Saks Fifth Avenue, New York City, while the ""beauty" shop is under the supervision of a "beauty specialist" of national reputation. One of the wings on the first floor are devoted to bachelor quarters, one to other guest rooms, one to living accommodations for the employees and the other to miscellaneous facilities, such as storerooms, dining rooms for employees and the valet shop.

On the second floor three of the wings and the major portion of the main section are devoted to guest rooms, while the main section also contains a lounge, two stories in height, a bridge room and a sitting room. At the outer end of each of the south wings on this floor is a sun room which opens on each of these sides onto a rectangular sun deck. These sun-bathing facilities are rented en suite with adjacent rooms.

The other wing on the second floor—that at the northwest corner—contains kitchen and auxiliary facilities for serving a dining room situated on this floor between the two west wings, which has space for seating 230 persons. In plan the dining doom is in the form of a 90-deg. segment of a circle with circumference, which comprises the outer wall of the room, embodying a series of large "picture" windows. Being on a level somewhat below that of the second floor, the dining room is reached from the main corridor of that floor by a short flight of circular steps situated in the angle formed by the juncture of the two wings.

On the third floor three of the wings and all of the main section, excepting the space occupied by the upper portion of the lounge, are devoted to guest rooms, while the entire northwest wing is occupied by servants' quarters. A sun room, flanked by sun decks, is also provided at the end of each of the south wings on this floor. On the fourth floor, which extends only over the Central portion of the structure, guest rooms occupy the entire space. Two elevators are provided in the building, one in the central section for the use of patrons and the other in one of the wings for employees.

Construction Features

A terrace, 18 ft. wide by 170 ft. long, extends along the south facade of the main section of the hotel at the second floor level. Reached from the ground level by means of concrete stairways at each end, the terrace is connected by doorways with the lounge on the second

Showing the Interior of the Lounge

floor. The floor of the terrace serves also as the roof for a portion of the facilities on the first floor.

Designed to harmonize on the exterior with its rugged surroundings, the lodge is of modern fireproof construction. The exterior walls are of reinforced concrete, molded and colored on the outside in imitation of weathered timber construction, the roof is of wood-frame construction covered with cedar shake shingles stained in variegated colors, while the partitions are built of fire-proof gypsum blocks manufactured by the United States Gypsum Company. All public rooms are sound-proofed with acoustical plaster, while the partitions separating guest rooms, as well as all doors, are also sound-proof.

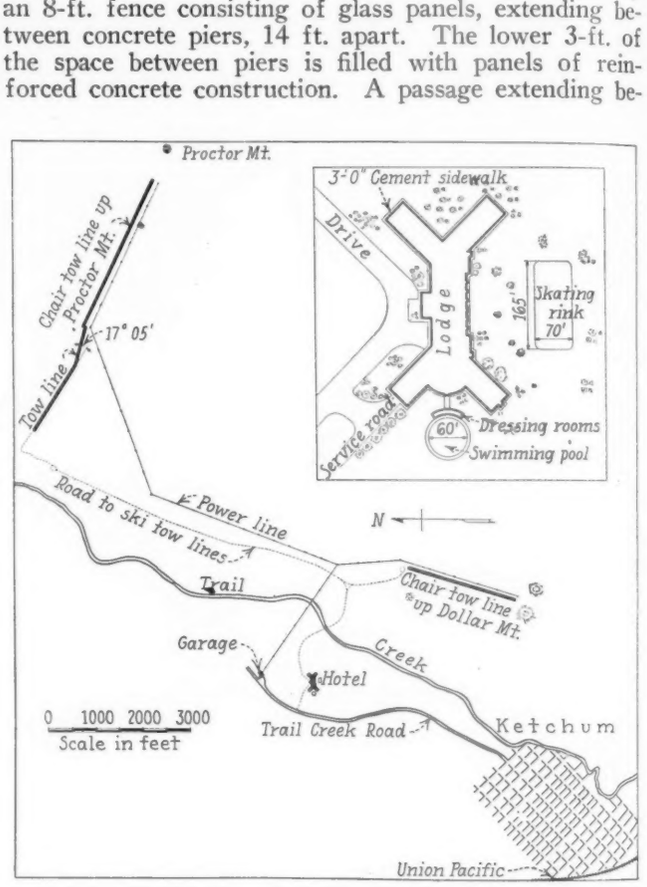
Certain of the third and fourth floor rooms having a southern exposure are provided with outside balconies which, together with the sun decks at the ends of the south wings and the terrace, are surrounded by balustrades consisting of reinforced concrete posts and wood rails. Contributing to the rugged appearance of the structure is the effect created by the use of native stone, laid random, at various points in the exterior of the lodge, notably in pilasters in the south facade of the main section, which extend up to the level of the terrace, and in chimneys which pierce the roof at various points.

The water supply at the lodge is provided by independent wells and all water is purified before use. A 150,000 gal. water storage tank is provided. Sanitary facilities include sedimentation tanks, a sludge digestion chamber and a sub-surface irrigation system for disposal of the effluent after chlorination.

View of a Portion of the Game Room

Swimming Pool

The swimming pool, which is provided with hot water, is situated in the angle between the wings at the west end of the hotel, where it is visible from the dining room. This pool, which is of reinforced concrete construction, is circular in shape and 60 ft. in diameter and is surrounded by a concrete sidewalk 6 ft. wide. To protect swimmers from the end and at the same time provide a maximum of visibility, the pool is enclosed by an 8-ft. fence consisting of glass panels, extending between concrete piers, 14 ft. apart. The lower 3-ft. of the space between piers is filled with panels of reinforced concrete construction. A passage extending between the pool and the hotel is protected by walls of the same construction as that which surrounds the pool.



Sketch Map of the Lodge and Other Facilities at Sun Valley With the Hotel and Its Immediate Surroundings Shown on a Larger Scale in the Inset

For heating the interior of the pool enclosure, radiators are provided at intervals along the walls. The water in the pool is maintained at a uniform temperature of 90 deg. F. A feature of the pool is a continuous bench around the side wall on which swimmers can seat themselves so that only their heads remain above water. A bath house containing dressing rooms is provided on the side of the pool next to the hotel.

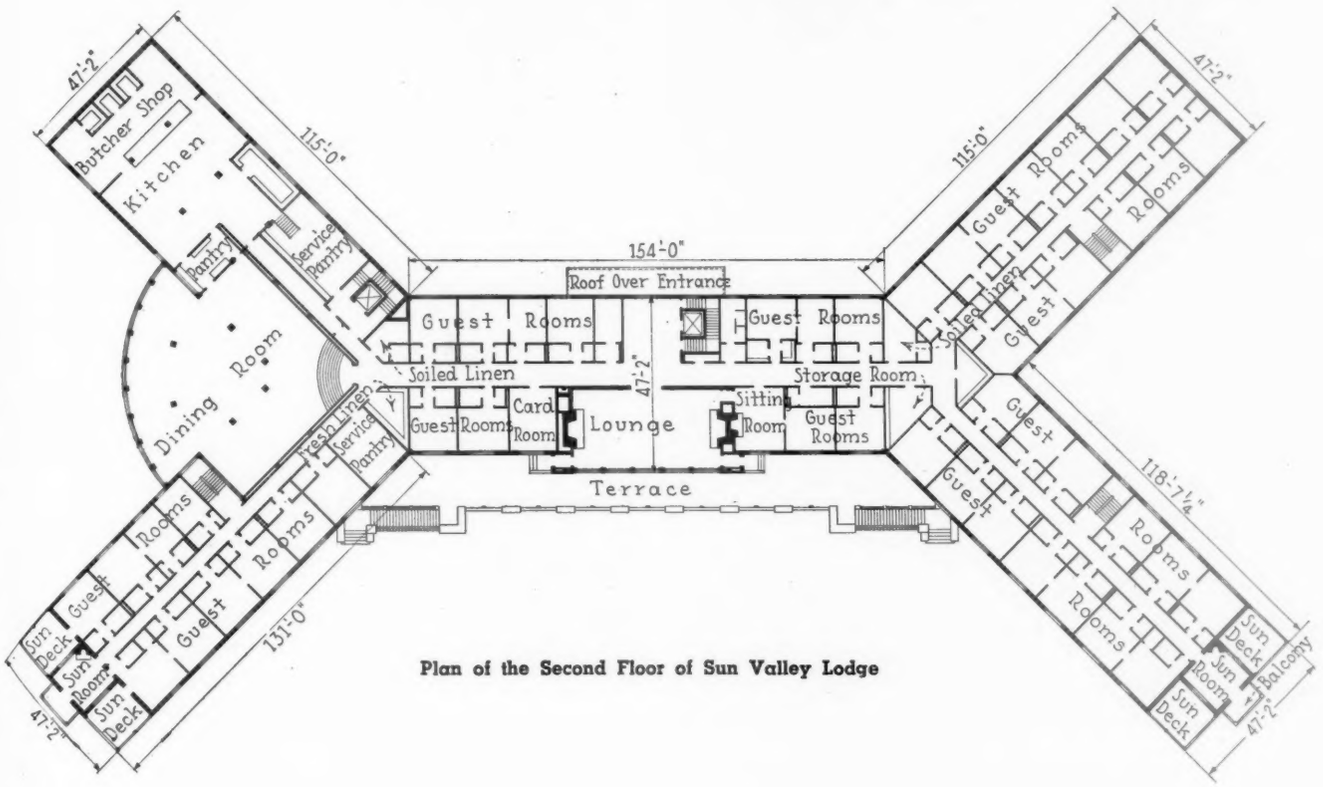
Ski Lifts Are Unusual Feature

Directly south of the hotel, where it is plainly visible from the terrace, is the skating rink which is 70 ft. wide and 165 ft. long, with the longitudinal center line parallel with that of the main portion of the lodge. Both the skating rink and the pool are flood-lighted at night.

The ski-lifts that have been provided at Sun Valley

Lodge comprise one of the most noteworthy features of the project. There are two of these lifts, the longest and highest of which is located on Proctor mountain. This ski-lift, the lower end of which is located about two miles northeast of the hotel, is divided into two parts—a tow or drag line and a chair line—both of which involve the use of endless traveling cables as the transporting agencies. The tow line, by means of which the skier is dragged along on his skis while remaining in an upright position, is 2,470 ft. long and has a vertical rise of 235 ft. At the upper end of the tow line the skiers transfer to the chair line by means of which the passengers, without removing their skis, are transported while seated in chairs attached to the traveling cable. The chair line is 3,490 ft. long and rises vertically a distance of 1,144 ft. above the top of the tow line. From the upper end of the chair line the skiers may climb about a thousand feet higher if they desire.

The other ski lift, a chair line, is located on Dollar mountain where a "ski school" is operated. This ski lift, the lower end of which is situated less than a mile southeast of the hotel, is 2,360 ft. long and has a vertical rise of 612 ft. Access to both ski lifts is provided by a paved highway over which buses operate for the convenience of skiers. A small heated cabin is provided at the upper end of each ski lift where patrons may obtain light refreshments.



Plan of the Second Floor of Sun Valley Lodge

Details of Ski Lifts

In each of the ski lifts the endless cable is supported on sheaves at the ends of steel cross-arms fastened to treated timber poles which are usually spaced 150 ft. apart, although in some cases the spacing is much less because of breaks in the grade of the slope. The sheaves on the right hand ends of the cross-arms carry the ascending portion of the cable while the descending portion passes through sheaves at the opposite ends of the cross-arms, the two portions of the cable being 10 ft. apart. All cables are pre-stretched and are ⅞-in. diameter 6 by 19 plough steel with independent wire-rope centers.

Normally the sheave arrangement at each end of the cross-arms embodies a 16-inch supporting sheave above which is mounted a smaller guide sheave to prevent the cable from rising out of the groove in the lower sheave. At certain points where the poles are situated at grade summits, either two or three supporting sheaves are provided while at one grade sag in the Proctor Mountain line (where the cable exerts an upward pressure) three sheaves are provided above the cable and one below at each end of the cross-arm.

In the chair lines most of the posts are reinforced on the uphill side by back-legs consisting likewise of treated poles, while in some cases guy wires are provided on the downhill side. The cross-arms, which consist of 2¼-in. cold rolled steel shafting are braced with structural angles. At one point in the tow line where the direction changes, involving a 17-deg. 5 min. horizontal angle, a structural steel angle tower is provided. With this one exception the ski lifts are laid out in straight lines.

On the chair lines the seats are attached to the cables at intervals of 125 ft. Constructed of seamless steel tubing, the chairs are provided with back rests and hair padded seats and leg rests, with specially-treated leatherette covers. Each chair is suspended from the cable by a length of tubing so formed that the center of the chair is always in direct vertical line with the cable. Specially designed connections between the seat hangers and the cables pass over the sheaves with a minimum of disturbance to the occupants of the seats. An adjustable feature permits the chairs to be raised or lowered on the hangers to compensate for varying depths of snow.

As the chairs are constantly in motion while the ski lift is in operation a rope is attached to the cable 6 ft. in front of each chair for the use of the skier in becom-

ing seated. By grasping the rope the skier attains sufficient speed on his skis to let himself down into the chair at its traveling speed. While the cables may be operated at variable speeds they normally travel at the rate of 400 ft. per min., which is equivalent to about 4½ miles an hour.

The ski tow line is similar in all essential respects to the chair lines except that padded bars are provided in place of the chairs. On this line the skier, wearing his skis, simply grasps a rope and maneuvers into position in front of one of the bars so that he is conveyed up the incline in an upright position.

At the top of each ski lift the cable passes around a 10-ft. bull wheel, mounted in a structural steel tower, which imparts the necessary traction. In each case the traction wheel is direct-connected to a vertical gear motor, consisting of a 45-hp. motor on the Proctor Mountain ski chair line, a 15-hp. motor on the tow line

View on the Dollar Mountain Chair Line Showing a Chair Just After Having Passed a Set of Sheaves

and a 25-hp. motor on the Dollar Mountain chair line. Commercial power is used. The motors are equipped with automatic magnetic brakes which are applied immediately if the power is cut off, thus preventing the chairs from backing down hill. While the main controls are located at the upper ends of the ski lifts, auxiliary push button controls are provided at the lower ends. A telephone communication system is provided between the top and bottom of each ski lift and between these points and the hotel.

Lower Towers Are Adjustable

At the lower end of each ski lift the cable passes around a 10-ft. bull wheel, without traction, which is mounted in a movable structural steel tower supported on rollers. Adjustment of the tension in the traveling cable to compensate for temperature changes is accomplished by means of a cable which extends from a connection with the lower bull-wheel tower at its rear end and passes over sheaves in a structural steel anchor tower. Because of the movability of the bull-wheel tower, adjustable weights at the end of the cable in the anchor tower exert a direct influence on the tension in the traveling cable.

To aid in the development and operation of Sun Valley Lodge, which it operates directly, the Union Pacific has engaged the services of a number of noted ski experts. Among these is Count Felix Schaffgotsch, an Austrian sportsman, who selected Sun Valley as the location of the development after a thorough exploration of all available sites. Another is Hans Hauser, three times open ski champion of Austria, who has been retained to head the school of ski instruction. Mr. Hauser will be aided by five other Austrian experts. In charge of the training of guides at Sun Valley is Charles N. Proctor, American authority on skiing.

The winter sports project at Sun Valley was conceived and planned under the general direction of W. Averell Harriman, chairman of the board of the Union Pacific, while all engineering matters were handled under the general supervision of H. C. Mann, chief engineer, who was appointed vice-president in charge of operations on January 1. The design and construction of the buildings were supervised by W. T. Wellman, architect of the railroad, while the ski chair lines were designed by G. H. Trout, bridge engineer. Sketches of the lodge were prepared by Gilbert Stanley Underwood & Co., consulting architects of Los Angeles. The general contractor on the construction of the hotel was the J. V. McNeil Company, Los Angeles, while the ski ways were built by company forces. More than a million dollars were spent in the construction of the lodge and other facilities at Sun Valley.

Pettengill Measure Is a Shippers' Bill

THAT repeal of the long-and-short-haul clause of the Interstate Commerce Act is a shippers', not a railroad, measure, was contended by Representative Samuel B. Pettengill, of Indiana, in an address before the Traffic Club of Chicago on January 18, in which he advocated the repeal of the clause to end inequitable treatment of railroads and shippers in the territory between the Alleghany and the Rocky mountains. In arguing for the repeal of the fourth section of the act, as proposed in the Pettengill bill, passed in the House last year by a majority of more than four to one but not acted upon by the Senate, he outlined the development of population, a further tightening of the long-and-short-haul clause on the railroads, and its relation to increasing competition in transportation.

The Interstate Commerce Act was passed in 1887, he said, and in 1910 and in 1920 the fourth section was tightened, each amendment making it more difficult for railroads to move goods to distant markets. As these amendments were being written and as competing agencies were entering the transportation field, he continued, a tremendous change was taking place in the life of the nation. The interior began to dry up, the nation's growth moved to its circumference.

"In 1910, 38 per cent of our people lived within 50 miles of salt water or the Great Lakes. Ten years later it was 41 per cent. In 1930 it was 45 per cent. But still more startling is the fact that between 1920 and

1930, 67 per cent of our population growth took place within this 50-mile zone.

"This was not good for the nation, interior or exterior. The 50-mile zone cannot hope to build a permanent prosperity at the expense, artificially produced, of the rest of the country from whence must come its minerals, its fabrics, its fuel, its lumber and its food. The interior is paying taxes for its own destruction. Industries in the interior have moved toward water and other industries which might have settled there, have stayed where they were.

Growth of Interior Cities Halted

"In this same decade, while 67 per cent of our growth moved toward deep water, and while the entire nation increased 16 per cent in population, the population of Iowa increased only 3 per cent, that of Minnesota 7 per cent, Kansas 6 per cent, Nebraska 6 per cent, Idaho 3 per cent, North Dakota 5 per cent, South Dakota 9 per cent, Kentucky 8 per cent, Tennessee 12 per cent, Indiana 10 per cent, Illinois (outside of Chicago) 12 per cent and Wisconsin 11 per cent while Montana decreased 2 per cent, Eastern Washington decreased 10 per cent and Eastern Oregon decreased 2 per cent. All of these states, and others, depend primarily upon railroads to move their products to market. Whatever the cause, or causes, of this shift of population and wealth, it is evident that Congressional treatment of rail and the competing carriers has not enabled these states to keep pace with the rest of the nation. For this reason, the passage of the Pettengill bill is of great importance particularly to the Middle West.

"It is important to realize that the Pettengill bill is essentially a shipper's bill and not a railroad bill. It originated as a shipper's bill, having been written and first sponsored by the National Industrial Traffic League, representing some 600,000 shippers throughout the nation. As shippers, why did they sponsor it? Only to reduce distribution costs, broaden markets, and quicken service. Shippers are not interested in railroads as such. Their prime interest is to reduce costs to the buyer and thus enlarge the markets to producers. Practically every petition for relief under the long-and-short-haul clause as now written, is filed only because some shipper asks the railroads how he can move goods into a market closed to him by transportation costs.

"The long-and-short-haul clause sounds difficult and mysterious. When you unwind the red tape, however, it is as easy to understand as a dog's bark. Railroads sell surplus transportation in the same way that producers sell surplus goods. A truck farmer close to a county seat will haul tomatoes into that market making two trips a day. His surplus tomatoes he will haul into the next county seat, making one trip a day. His margin of profit differs at the two points. He gets less for the long than the short haul. But he is glad to get into the distant market, even at a small profit. It helps carry his overhead of labor, taxes and interest. But he could not exist if he had to sell all his goods at the margin prevailing at the distant point. No more can the railroads.

"If the farmer had no wagon of his own to carry his tomatoes he would ask some truckman to shade his price for carrying the produce to a distant market. If the truckman did not help him share the differential between the two markets he might not be able to enter the market.

Long Effect Will Be Reduced Rates

"The bill, therefore, is designed to do what shippers, notably agriculture, have clamored for for years, that is, reduce distribution costs, broaden markets, foster competition and increase standards of living by reducing costs and increasing the total volume of goods consumed. The bill in its long run effect cannot but tend to reduce freight rates generally and thus benefit 125,000,000 people by bringing the power to consume into better balance with our power to produce.

"When the fourth section was written, the railroads enjoyed a practical monopoly in transportation. As always happens when monopoly is unregulated, serious abuses prevailed. I do not defend those abuses then and would not tolerate them now. But we ought not to penalize shippers and railway employees today with inherited prejudices.

"Since the fourth section was written the Panama Canal has been dug, pipe lines have entered the transportation field, electricity has learned to move coal by wire and government-financed hydro projects are eating into the soft coal industry whose products once moved by rail. Since then hundreds of millions of tax money have been spent on river and harbor developments; the federal government with its barge lines, has become a competitor of railroads; federal tax money has built roads in nearly every county; and aviation has invaded the transportation field, aided by federal subsidies.

"Since 1887, when the fourth section was first written, it is computed that the federal government alone, exclusive of states, has poured $4,841,000,000 into these competing agencies and their rights of way. A substantial fraction of that enormous sum has come from railroad taxation. Other railroad tax money goes to subsidize rivers and harbors, merchant marine and aviation. Meantime no aid has been given to the railroads other than R. F. C. loans, to be repaid with interest."

Will Check the Trend Toward Government Ownership

Mr. Pettengill termed the passage of the bill by the House a most important step, for it indicates a turning of the tide. It is the first time in 50 years, he said, that railroads have won a case in the court of public opinion. It foreshadows an unwinding of the red tape from the railroads, and is the first attempt to free business from government or departmental regulation. It may be, he continued, a check in the trend toward government ownership, and, if so, is important, for if an industry with a value of $26,000,000,000 is forced into federal control, other industries cannot hope to escape.

Repeal of the long and short haul clause would rehabilitate railroad purchasing power, he pointed out. The carriers spent $13,274,000,000 on materials and supplies in the period from 1923 to 1934, he said, and $7,500,000,000 for capital expenditures. From $30,000,000,000 to $40,000,000,000 more was spent for wages, taxes, interest and the like. If the railroads could see a clear way ahead, he continued, they could make work for 1,000,000 to 2,000,000 men and afford to re-employ 700,000 other workers now idle.

BUSINESS GAINS THROUGHOUT THE COUNTRY have lately been so rapid that Railway Express Agency has had to re-employ 20,000 furloughed employees, L. O. Head, president of the Agency, said in a recent statement. The express executive, who was at Duluth, Minn., on the last leg of a 10,000 mile business survey tour including the principal industrial and commercial centers of the country, expressed enthusiasm over improved business conditions, instancing gains in railway express volume of from 15 to 28 per cent and in air express over 75 per cent in many centers. These figures represent gains in business for 1936 over 1935.

Aided by Hindsight, Examiner Raps New Haven Finances

Argues from road's poor investments made prior to 1913 that I.C.C. investment control would protect security owners

WASHINGTON, D. C.

DECLARING that the present financial difficulties of the New York, New Haven & Hartford might have been avoided if it had confined itself to "legitimate railroad operations," and that, whether or not other factors cited by the company contributed to the situation, "the fact remains that had the outside investments not been made the New Haven in all probability would have been able to avoid bankruptcy," Examiner O. L. Mohundro of the Interstate Commerce Commission has recommended, in a proposed report on the commission's investigation of the company's operations, that serious consideration be given to the propriety of an amendment to the law to require authorization by the commission before any investment is made by a carrier for other than its own carrier purposes.

The investigation was ordered by the commission on its own motion on November 12, 1935, shortly after the company had filed a petition under the bankruptcy act on October 23, 1935, and after Co-ordinator Eastman had omitted the company from the list he had selected for investigation by the Senate committee. It was to cover the history, management, financial and other operations, accounts, expenditures of carrier funds in other than common carrier operations, and practices. Because of the extensive investigation made by the commission of the New Haven affairs on which a report was made in 1913 the scope of the present investigation was confined to the period July 1, 1913, to October 23, 1935, but the report is devoted largely to the effect of the outside investments in other railroads and trolley, steamship and other companies, mostly prior to 1913. The losses ascribed to these investments are totaled at $330,000,000, including $70,000,000 described as recorded losses, $154,000,000 as "constructive losses," and $105,000,000 as "potential losses." The company had described its difficulties as to a large extent attributable to the effects of the government's management of its affairs during the war period. The report includes the following:

The Report

From the summary it is apparent that the losses resulting from the company's investment in other companies are more than sufficient to explain the profit and loss deficit existing as of October 23, 1935. As a matter of fact that deficit would have been much greater were it not for the credits of $25,995,321 and $6,744,850 recorded during the period under consideration to adjust accounting performed prior to 1913. It is significant that in the period of slightly over 22 years the company recorded a net income, after charges, of $64,856,367, and by eliminating from that figure debits of $12,710,706 included therein in recording additional losses incident to the company's investments in other companies, a net income of $77,567,073 results. That total represents an average of approximately $3,500,000 per annum during an interval that includes the World War period, as well as the most serious and extended business depression in the nation's history. The dividends charged to profit and loss account for only about 55.6 per cent of the net income of $77,567,073, and the charges for property retired or abandoned are not shown to be excessive. Therefore, the losses from the company's investments remain principally to explain its profit and loss deficit. Accordingly, the investments responsible for such losses were the principal subject of this investigation, though other premises of the order were fully considered.

In addition to losses recorded as such by the New Haven during the period from July 1, 1913, to October 23, 1935, with respect to its investments in other companies, either by charges to income or profit and loss, consideration has been given in the present investigation to attendant losses represented by the burden of carrying charges attaching to the funds invested. Because of the loose and complicated methods employed in recording financial transactions prior to July 1, 1913, it was impossible to determine the exact origin of funds invested in other companies. However, the huge increase in funded obligations between 1903 and 1913, over and above the increase assignable to expenditures for railroad purposes, makes it obvious that for the most part the investments under consideration were acquired with borrowed money. While a small part of the investments may have been acquired with the proceeds from the sale of stock, such funds, if not expended in the acquisition of those investments, would have been available to reduce outstanding funded debt, with a consequent saving in interest. Therefore, the investments in question are considered as being responsible directly or indirectly, for the carrying charges attaching to the funds invested.

The attendant losses mentioned have been computed for the purpose of this report at a rate of 4 per cent per annum, simple interest, applied generally to the recorded value of the related investments, against which, however, have been allowed as credits the earnings, or return, actually received by the New Haven from the investments, up to a maximum of 4 per cent per annum. In cases where such investments have been disposed of at a recorded loss, an attendant loss has been computed by applying the rate of 4 per cent to the amount of the recorded loss from the date entered to October 23, 1935. These attendant losses have been termed "constructive losses" in this report for purposes of identification. Nevertheless, they represent real losses to the New Haven which have resulted directly from its investments in other companies.

Consideration also has been given in the present investigation to the "potential" loss attaching to many of the New Haven's investments in other companies. These investments were acquired generally at inflated prices and as a consequence the book values as of October 23, 1935, were correspondingly inflated. Therefore, the approximate values of the investments have been computed as of October 23, 1935, and the differences between such values and the recorded book values treated as potential losses as of that date.

Included in the recorded losses of $71,320,133 are amounts aggregating $22,478,900 representing expenditures by the New Haven during the period from July 1, 1913, to October 23, 1935, in fulfilling its guarantees with respect to securities of affiliated companies in the hands of the public.

Considering certain incidental items not directly assignable to a particular investment, but recorded primarily as a result of

the New Haven's investments in other companies, the losses existing as of October 23, 1935, were as follows:

Item	Amounts	
Losses resulting from investments in other companies, as summarized:		
Recorded	$71,320,133	
Constructive	154,334,940	
Potential	105,093,670	
		$330,748,744
Loss resulting from direct investment in trolley property:		
Recorded		528,211
Loss on New Haven bonds purchased from New England Steamship Company at an agreed price and re-sold at a loss:		
Recorded	$49,912	
Constructive	433,010	
		482,923
Less:		
Net amount recovered and credited to profit and loss incident to litigation arising from previous investigation:		
Recorded		1,555,009
Net loss:		
Recorded	$70,343,247	
Constructive	154,767,950	
Potential	105,093,670	
		$330,204,868

With the exception of a few minor items, the respondent admits that recorded losses in the amount shown above were suffered by it as a result of investments in other companies. It contends, however, that the so-called constructive losses are based on arbitrary, incomplete and sometimes erroneous assumptions, and the so-called potential losses are uncertain and speculative and may never be realized.

Restatement of Income, Profit and Loss

The recorded losses charged to income and profit and loss, totaling $70,343,247, and the constructive losses of $154,767,950, as previously detailed, resulted from activities on the part of the New Haven aside from those pertaining to its own transportation property. The drain on the New Haven occasioned by such activities probably can best be illustrated by showing what its profit and loss balance might have been as of October 23, 1935, had it not been necessary to absorb the losses and carrying charges previously detailed, which is done in the following tabulation:

Profit and loss debit balance, October 23, 1935	$3,962,766
Less: Interest and guarantees accrued, July 1, 1935, to October 23, 1935, but not paid	336,834
Debit balance as modified	$3,625,932
Recorded losses as detailed, eliminated	70,343,247
Profit and loss credit balance, as computed	$66,717,315
Constructive losses, as detailed, eliminated	154,767,950
Profit and loss credit balance, as computed	$221,485,266

It will be observed from the foregoing computations that instead of a debit balance of $3,962,766 in profit and loss at October 23, 1935, there might have been a credit balance of $66,717,315 if it had not been necessary for the New Haven to absorb the recorded losses in question, without considering the excess of carrying charges on the investment over the return therefrom; and that if the latter element is given due weight, the credit balance might have amounted to $221,485,266. In the latter event there is no doubt that the New Haven would have been able to pay regular dividends on its capital stock and yet have been in excellent financial condition as of October 23, 1935. This is supported by the statistical data included in the company's annual reports to the Commission, which show that under any of the statistical standards usually employed, the New Haven's railroad operations during the period produced very favorable results.

Although respondent admits that investments in outside companies increased the amount of its fixed charges and to that extent made its financial situation more difficult, it contends that several other factors contributed in substantial measure to compel it to seek financial reorganization in 1935, and that without those other factors it would have been able to overcome the handicap of fixed charges and to readjust its investment account. Such other factors cited were:

1. Loss of control over certain outside companies for a considerable period of time as a result of the consent decree of 1914, the circumstances surrounding which have been outlined hereinbefore.

2. Effect of the operation of its transportation properties by the United States Railroad Administration during the period of Federal Control.

3. Interest paid on Government loans, in excess of the cost of money to the Government; and

4. The depression.

Respondent's contentions have had full consideration. However, it would serve no useful purpose to discuss the evidence introduced by the respondent in respect to these contentions. Whether or not the factors above outlined did contribute to the New Haven's present financial difficulties, the fact remains that had the outside investments not been made the New Haven, in all probability, would have been able to avoid bankruptcy.

Conclusions

While it is true that approximately 97 per cent of the investments under consideration were made prior to July 1, 1913, recorded losses during the period under investigation resulting from the compulsion of guarantees assumed by the New Haven incident to such investments, amounted to $22,478,900. That amount represents approximately 32 per cent of the total recorded losses reported, and certainly can not be considered as a "relatively small subsequent expenditure."

Provisions of law have been added that would prevent some of the above-mentioned outside investments by the New Haven management. For example, under the provisions of section 5(4) and (5) of the Interstate Commerce Act, as amended, no railroad may lease or purchase any other railroad or any part thereof, or acquire control of another railroad by purchase of stock without prior authorization from the Commission. Under the provisions of section 20a of the Act the Commission may refuse to grant a carrier authority to issue securities for acquiring property that is not to be used in the operation of its railroad or in the legitimate improvement, extension, or development of its railroad.

Notwithstanding the several amendments to the Act, there is nothing in the law directly to prevent a railroad company from acquiring stock of other railroad companies where the amount of stock purchased is insufficient to give the acquiring company control, or from acquiring stock of companies not engaged in interstate commerce, or from acquiring property of any character so long as such acquisitions are made without the issue of securities or the assumption of obligation or liability in respect to the securities of some other person. The law as now in force would not prevent carrier management from buying into many such undertakings as those reported above, nor is the law now sufficient adequately, and completely, to protect the investor in railroad securities from results similar to those reported above.

Railroads are required to keep their accounts in accordance with the Commission's regulations. Such regulations relate only to the accounting of carriers under the jurisdiction of the Commission. They do not, and under the law can not be made to, relate to the accounting of the many permissive outside companies. A railroad may form a "company" (such as a holding company), own, report and account for its investment in such company, and through the company proceed to do that which may bankrupt the railroad.

Although railroads should not be prevented from proper development as transportation systems, the Interstate Commerce Act should be amended to prevent a recurrence of many of the actions of railroad management which have caused or so clearly contributed to the need for reorganization in bankruptcy of many of our railroads. If the law is to remain as it is permitting common carriers to form holding companies and to function through subsidiary companies not subject to the act, then, to say the least, such companies and subsidiaries should be made subject to the Commission's jurisdiction and regulations as to their accounting and the issuance of securities. The Interstate Commerce Act, as amended in 1933, requires that authority of the Commission be obtained before investments in other carriers, which amount to control or power to exercise control, are made by railroads.

Current records in bankruptcy and other pending proceedings show conclusively that a large part of so-called outside

investments that have caused financial disaster are those not amounting to control, hence in no effective way covered by the Act. Railroad management should be left free of regulation in the widest range compatible with the public interest. However, the bad effect, in financial results, of so-called outside investments, including those not amounting to control, so abundantly reflected in records now before the Commission and the Congress, should cause serious consideration of the propriety of so amending the law as to require authorization by the Commission before any investment is made by a carrier for other than its own carrier purposes.

Our regulatory laws should be so framed and administered as to afford a fair measure of protection to investors in railroad securities.

Whether respondent during the period here in question (July 1, 1913, to October 23, 1935), should have sought relief from obligations entered into by the management prior to 1913, as was requested by some of its stockholders in a petition for a limited receivership, or in other respects should have attempted to relieve the company in any way is now mooted by the pending proceeding for reorganization in bankruptcy under section 77 of the Bankruptcy Act. The financial results obtained by the New Haven's management during the period in question are reflected fully by this record.

Discussing the company's financing since 1913 the report says that the proportion of stock to funded debt changed from about 44 per cent stock and 56 per cent funded debt in June, 1913, to about 45 per cent stock and 55 per cent funded debt in October, 1935, and that the increase of $86,384,713.74 in outstanding securities is more than accounted for by the concurrent increase in investment in physical property.

"There is considerable logic," it says, "in the view that the New Haven was compelled to resort to short-term paper to such a considerable extent because the proceeds of its long-term borrowings had been absorbed to a great extent by outside investments, and in harmony with that view it might be said that attendant discounts and expenses represent an additional loss attaching to the outside investments. However, as that view might be subject to argument and the amount involved is not sufficient to affect materially the conclusions indicated by this report, the only financing costs considered are those specifically mentioned."

Annual Report of Bureau of Safety

THE annual report of Director W. J. Patterson of the Interstate Commerce Commission's Bureau of Safety for the fiscal year ended June 30, 1936, is a 53-page pamphlet setting forth in the usual form results of inspection of safety-appliance equipment on railroads, together with information concerning the hours of service records of railway employees, installations of signals, and automatic train-control devices, investigation of railroad accidents and other activities of the Bureau.

During the period under review a total of 1,343,057 cars and locomotives was inspected, the number of safety-appliance defects being 28.68 per 1,000 units of equipment inspected. This compares with 26.02 per 1,000 for the year ended June 30, 1935. Recasting the figures on a percentage basis the report shows that in the 1935-36 period 2.44 per cent of the locomotives and cars inspected were defective. Aside from the year ended June 30, 1934, with its 2.45 per cent, last year's figure was "the highest record since 1928."

Air-brake tests were made on 2,799 trains, consisting of 114,972 cars, made up for departure from terminals; and the brakes were found operative on 99.9 per cent of these cars. Similar tests on 904 trains of 42,379 cars arriving at terminals revealed operative air brakes on 98.37 per cent of the total. In order to secure the former percentage (99.9), with respect to cars with operative brakes in trains made up for departure, the report points out that on the 2,799 trains involved, tests by I.C.C. inspectors resulted in the setting out of 770 cars with defective or inoperative brakes, and the repairing in trains of brakes on 635 cars. Attention is called to the fact that on June 30, 1936, only 3.22 per cent of railroad-owned cars and 1.25 per cent of those owned by private car lines were equipped with AB brakes. During the year under review 34,815 cars or 1.56 per cent of the total in service were so equipped—a conversion program which, the Bureau warns, "has not yet approached the rate necessary to complete the work by January 1, 1945, as prescribed by the interchange rules."

With reference to tests designed to determine whether an extension of the prescribed brake-cleaning period for type AB equipment was warranted, the report cites "further condition tests" during the year, the results of which "show conclusively that the 36-month period, which was tentatively adopted was too long for present equipment, due principally to obstruction in whole or in part of both the long and short feed grooves of the service portion as well as the charging choke of the quick-action chamber of the emergency portion, by iron oxide, dust, oil and other foreign substances." It adds, however, that new types of strainers designed to overcome these difficulties are now being developed along with other improvements of design and construction.

Brief reference is made to laboratory tests of automatic train pipe connectors conducted by the Association of American Railroads at Purdue University. It is stated in this connection that, as a result of tests of two types of connectors to develop their performance under winter weather conditions, the joint committee on automatic train line connectors on June 18, 1936, recommended to the A.R.R. Operating and Mechanical Division's general committee that no further tests be made and that the matter be closed. The I.C.C. had not received a report on these tests when the Bureau's report was prepared. The Bureau's inspections and investigations of accidents wherein free slack in couplers was a contributing cause indicate that "mandatory requirements," rather than rules of recommended practice relied on at present, are necessary in order to effect the desired improvement in this equipment.

Investigations during 1935-36 disclosed that a large number of accidents have been caused by the failure of arch-bar trucks. The report lists 10 such accidents investigated during the calendar year 1935 and the first nine months of 1936. These accidents resulted in 8 deaths and injuries to 19 persons. Special reference is made to property damage resulting from certain of these accidents—in one case it amounted to $205,000; in another, $100.283; and in a third, $73,210. Next is a listing of the Bureau's recommendations in reports of such accidents followed by a tabulation of A.A.R. rules on the elimination of the arch-bar truck. The action of the A.R.R. board of directors in denying in this connection a further extension beyond January 1, 1938, is found "fully justified by the liberal time allowance that has already been provided for this improvement, and by the heavy toll of life and property losses that has been inflicted upon the handling carriers as a result of accidents caused by failure of trucks of this design."

A tabulation shows that as of June 30, 1936, a total of 589,445 interchange freight cars or 26.5 per cent of the

(*Continued on page 189*)

Decrease in Number of Casualties from Locomotive Accidents

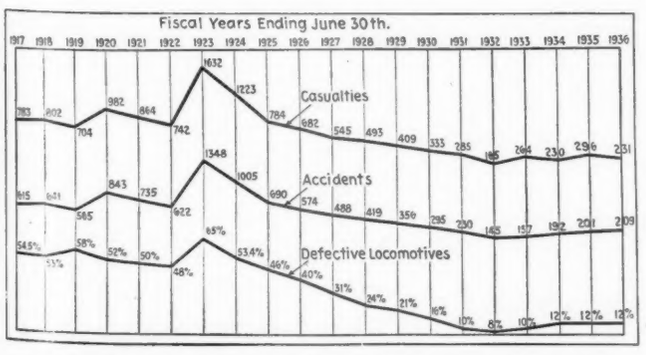
Twenty-fifth annual report of the Bureau of Locomotive Inspection shows 12 per cent of locomotives inspected found defective and a decrease of 16 per cent in casualties

THE annual report of the Bureau of Locomotive Inspection submitted by John M. Hall, chief inspector, which covers the year ended June 30, 1936, represents the completion of a quarter of a century of federal locomotive inspection. The report shows that during the past year there was an increase in the locomotives found defective on inspection, although the percentage of defective locomotives remained the same as the preceding two years. There was also an increase in the number of accidents, but the number of persons killed and injured showed a decrease from the preceding year.

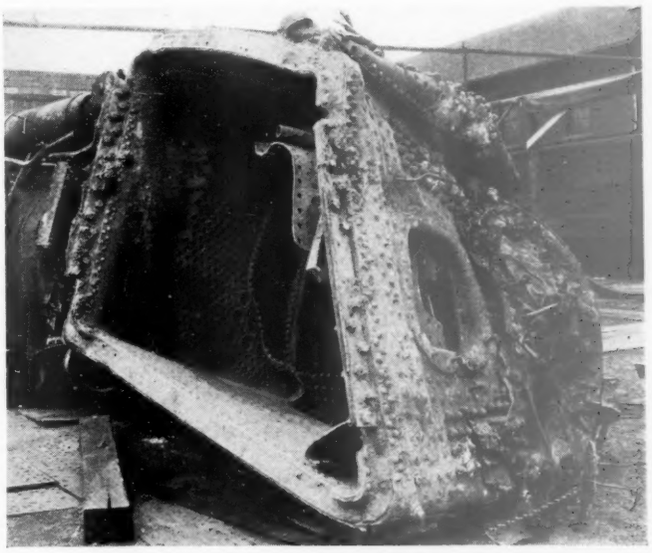
Steam Locomotive Accidents—Number of Casualties Classified According to Occupations

	Year ending June 30									
	1932		1933		1934		1935		1936	
Members of train crews:	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Engineers	3	59	2	58	1	57	7	65	4	75
Firemen	4	49	1	48	1	73	4	70	6	72
Brakemen	2	18	..	17	1	32	2	26	3	28
Conductors	..	7	..	10	1	17	..	10	..	13
Switchmen	..	3	..	8	..	6	..	3	..	2
Enginehouse and shop employees:										
Boilermakers	..	1	..	1	..	2	..	6	..	..
Machinists	..	1	..	2	..	5	1	3	..	4
Foremen	..	..	..	..	..	..	..	2	..	3
Inspectors	..	..	..	1	..	3	..	1	..	2
Watchmen	..	1	2	3	1	4	1	1	1	1
Boiler washers	..	..	..	1	..	..	..	..	..	..
Hostlers	..	5	..	..	1	5	..	3	..	3
Other enginehouse and shop employees:	..	4	..	3	..	1	..	6	..	3
Other employees	..	2	..	2	1	4	14	49	..	5
Nonemployees	..	6	3	102	..	14	..	22	2	4
Total	9	156	8	256	7	223	29	267	16	215

The Locomotive Boiler Inspection Act became obligatory upon the carriers on February 11, 1911. Authentic records as to the number of casualties caused by defective boilers and their appurtenances prior to the enactment of the act are not available, but in 1912 there were



Relation of Defective Steam Locomotives to Accidents and Casualties Resulting from Locomotive Failures

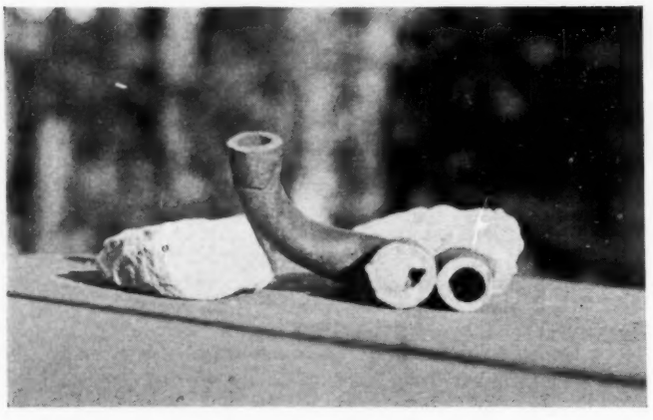


Crown Sheet Failure That Resulted in the Death of Three Men

91 persons killed and 1,005 injured in accidents involving locomotive boilers. In 1936 there were 10 persons killed and 80 injured. In 1917 the act was amended to include the entire locomotive and tender, and was later amended to include all locomotives regardless of the source of power. The total number of persons killed as a result of failures of locomotive boilers and their appurtenances from 1912 to the present date was 717, and the total number of injured was 8,771. If the casualties had occurred at the same rate throughout the period as they occurred in the first year in which the act was effective there would have been 2,275 persons killed and 25,125 injured.

During the fiscal year ending June 30, 1936, the number of steam locomotives inspected totaled 97,329 of which 11,526 or 12 per cent were found defective and 852 were ordered out of service, the latter figure representing a decrease of 7.5 per cent from the preceding year. In 1935 there were 94,151 locomotives inspected of which 11,071 were found defective and 921 were ordered out of service. In the year ending June 30, 1934, a total of 89,716 locomotives were inspected of which 10,713 were found defective and 754 were ordered out of service. The total number of defects shown in the last three reports were 43,271 in 1934, 44,491 in 1935 and 47,453 in 1936.

The number of accidents was 192 in 1934, 201 in 1935, and 209 in 1936. The number of persons killed were seven in 1934, 29 in 1935, and 16 in 1936. The 16 deaths in 1936 represents a decrease of 44.8 per cent from 1935, whereas the 29 persons killed in 1935 repre-



Top Water-Glass Pipe Practically Closed in an Attempt to Repair Defect in the Pipe by Fusion Welding

sents an increase of 314.3 per cent over 1934. The number of locomotives which it was found necessary to order out of service, because they were immediately unsafe, fell to 215 in 1936 from 267 in 1935, representing a decrease of 19.5 per cent. These figures together with similar ones for 1933 and 1932 are given in the accompanying tables. These tables show a comparison of the accidents and casualties during a six-year period and the occupation of those killed or injured. Comparing 1936 with 1935 it will be noted that there was an increase of four per cent in the number of accidents.

Steam Locomotive Failures

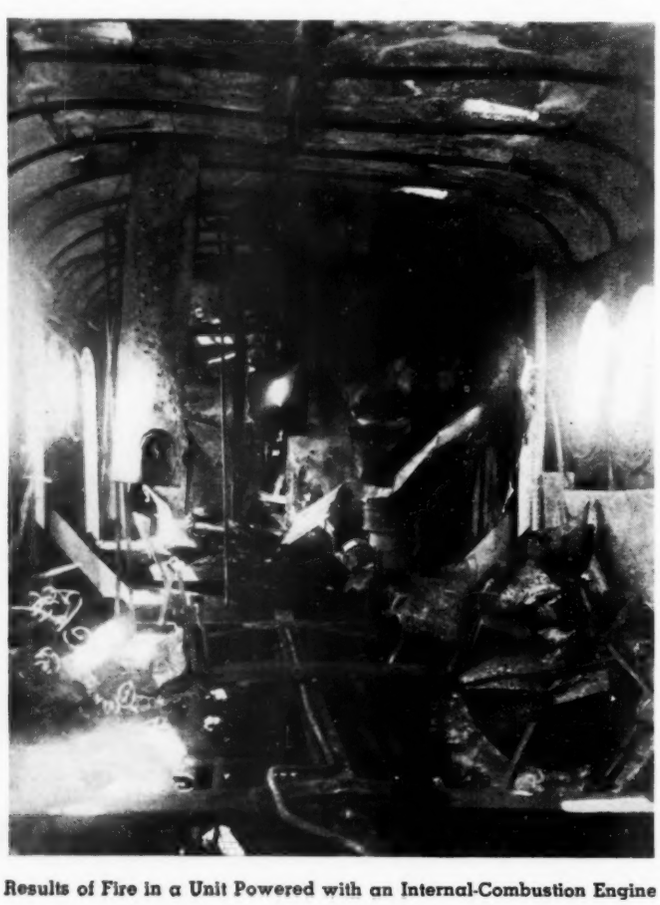
There was an increase of eight in the number of accidents occurring in connection with steam locomotives, a decrease of 13 in the number of persons killed, and a decrease of 52 in the number of persons injured compared with the previous year. The chart shows the relation between the percentage of defective steam locomotives and the number of accidents and casualties resulting from failures thereof, and illustrates the effect of operating locomotives in defective condition.

Boiler explosions caused by crown sheet failures continue to be the source of most of the fatal accidents. There was a decrease of three accidents, a decrease of 13 in the number of persons killed, and a decrease of 52 in the number of persons injured from this cause as compared with the previous year. Eight persons were killed in such failures in 1936, this representing 50 per cent of all fatalities that occurred during the year. Eight persons were injured in accidents caused by crown sheet failures, this representing 3.7 per cent of all injuries that occurred during the year.

Accidents and Casualties Caused by Failure of Some Part of the Steam Locomotive, Including Boiler and Tender

	Year ending June 30				
	1932	1933	1934	1935	1936
Number of accidents ...	145	157	192	201	209
Per cent increase or decrease from previous year	36.9	8.3*	22.3*	4.7*	4*
Number of persons killed	9	8	7	29	16
Per cent increase or decrease from previous year	43.7	11.1	12.5	314.3*	44.8
Number of persons injured	156	256	223	267	215
Per cent increase or decrease from previous year	42	64.1*	12.9	19.7*	19.5

* Increase.



Results of Fire in a Unit Powered with an Internal-Combustion Engine

Other boiler and appurtenance accidents, including the failure of a side sheet due to overheating caused by negligence in not washing the boiler as often as water conditions required, resulted in the death of two persons and the injury of 72 persons. Compared with the first year in which the Boiler Inspection Act was effective, there was a reduction of 91 per cent in the number of accidents, a reduction of 89 per cent in the number of persons killed, and a reduction of 92 per cent in the number of persons injured.

Applications for extensions of time for removal of flues as provided for in Rule 10 totaled 1,115. Of these 92 were rejected, 75 were given extensions for a shorter time than requested, 124 were granted after defects found were repaired, 28 requests were cancelled, and 796 extensions were granted for the full periods requested.

Accidents and Casualties Caused by Failure of Some Part or Appurtenance of Steam Locomotive Boiler*

	Year ending June 30							
	1912	1915	1931	1932	1933	1934	1935	1936
Number of accidents.	856	424	91	43	53	63	68	75
Number of persons killed	91	13	15	8	3	4	24	10
Number of persons injured	1,005	467	122	46	55	77	119	80

* The original act applied only to the locomotive boiler.

Equipment Powered with Internal-Combustion Engines

Changes or modifications in some of the rules for inspection and testing of locomotives other than steam became effective on May 1, 1936. These changes were designed to clarify the applicability of certain rules to various types of heating equipment involved, and to reduce the fire hazard incident to the use of liquid fuels, particularly the fuels used in internal-combustion engines.

Special hazards accompany the use of internal-com-

bustion engine driven equipment due to the volatility and inflammability of the liquid fuels. There were eight fires from this cause recorded in the past year; four of the fires caused personal injuries, but all may have resulted in major disasters had it not been for fortunate circumstances.

The principal causes of these fires are overflowing of fuel through fuel reservoir vent pipes or carburetors when the reservoirs are being filled due to lack of proper means to indicate the height of fuel in the reservoirs or to inattention on the part of persons performing the filling operation, flooding of carburetors when the engines are in operation, and inability to control the engine speed due to unsuitable throttle mechanism or defective speed governors.

The report states: "If fires are to be avoided, it is incumbent upon the carriers to see that all practical mechanical safeguards are provided and maintained in good operating condition, and that all who are charged with the duty of filling the reservoirs be fully informed as to the proper and safe procedure and the results that may accrue through inattention or carelessness."

Annual Report of Bureau of Safety

(*Continued from page 186*)

aggregate of such cars still have arch-bar trucks; the comparable figures as of June 30, 1935, were respectively 734,799 cars or 31.2 per cent. From which the Bureau finds it "apparent that it will be necessary to accelerate the program considerably if it is to be completed by January 1, 1938."

Asserting that the "failure of freight-car wheels is becoming of increasing importance as a cause of railroad accidents" the report notes that the question of revised specifications is now being given consideration by the A.A.R. Also, attention is being devoted to the matter of braking ratios for lightweight freight cars, while co-operative action has been carried on by the Bureau of Safety with the Bureau of Accounts and the A.A.R. to assure that cars rebuilt under I.C.C. accounting rules will meet practically all A.A.R. requirements for new cars.

The Bureau believes that lightweight, highspeed, streamlined trains "must be considered as being still in the experimental stage." As yet there has been no train of that type "involved in a serious collision or derailment of such character as to furnish data relative to its ability to withstand impact shocks and tearing and shearing stresses." Nevertheless, the Bureau sees the increase in the number of these trains as "a matter which requires serious consideration;" and continues to point out that "at higher speeds a train is less easily controlled, there is less time to correct a mistake in action or judgment, and the consequences of an accident are likely to be more disastrous."

In this connection there are cited brake tests made in 1909 upon the assumption that brakes should be capable of stopping a 60 m.p.h. train, in not over 1,200 ft. These tests indicated that brake equipment then available was capable of stopping such a train in a distance of 1,100 ft. Modern trains, the report adds, should provide means of control of at least equal efficiency—for higher rates of speed stopping distances should not increase at a rate greater than in proportion to the square of the speed. Attention is also called to the need for adjusting signal systems to care for the high-speed trains.

During the year ended June 30, 1936, 208 roads of the 841 filing hours-of-service reports, reported a total of 8,733 instances of all classes of excess service, an increase of 4,266 instances over the previous year. There were 5,411 employees who remained on duty longer than 16 consecutive hours, an increase of 2,992 over the year ended June 30, 1935, due principally to "high water, adverse weather conditions, and wrecking and relief service." Also, there was an increase of 1,081 instances of telegraphers remaining on duty longer than the limitations prescribed by law. The report observes in this connection that "with the large number of qualified men throughout the country who are available for service, the number of instances of service in excess of that prescribed by the Hours of Service Act can be minimized by the exercise of greater diligence" on the part of operating officers.

The mileage of road equipped with automatic train-control devices on June 30, 1936, was 8,193.7; number of locomotives and motor cars, 5,543. In addition there were 2,283.3 miles of road and 3,582 locomotives and motor cars equipped with cab signals without A.T.C. devices.

On January 1, 1936, there were 109,392.9 miles of road operated under the block system of which 62,828.8 miles were equipped with automatic block signals. During the calendar year 1935 there was an increase of 24.8 miles of road operated under the automatic block system, and a decrease of 999.1 miles in non-automatic block signal mileage.

Alleged violations of the safety-appliance laws in 70 cases, comprising 111 counts, were transmitted to United States Attorneys for prosecution. During the year under review 251 counts were confessed and 12 dismissed; on June 30, 1936, there were pending in the various district courts 60 safety-appliance cases containing 123 counts. On the same date two hours-of-service cases containing 10 counts were also pending.

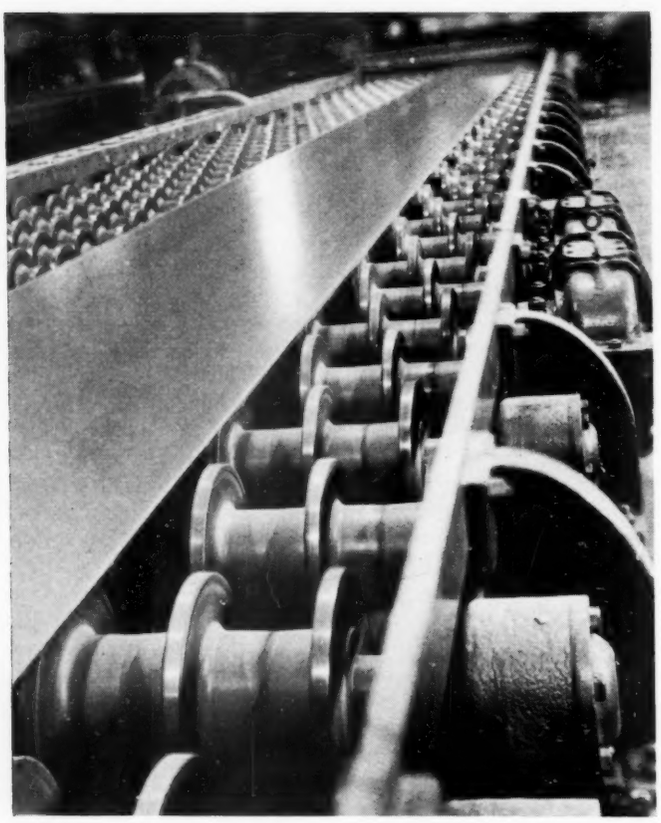
In discussing its work of investigating accidents the Bureau calls attention to the "continued and material decline in accidents in train operation" for a period of approximately 10 years, but goes on to cite data for the first six months of 1936 which "indicate that there is at present a decided upturn in the number of railroad accidents and casualties resulting therefrom." The figures cited show that during the first half of last year there were seven passengers, eight travelers not on trains, and 305 employees on duty killed in railroad accidents. Reference is also made to the "widespread publicity given to the fact that during 1935 not a single passenger was killed in collision or derailment of trains."

However, the report continues in this connection to quote statistics which show that during that year "one passenger was killed due to the explosion of a heater in a passenger coach of a standing train, and 17 passengers and seven travelers not on trains were killed when getting on or off cars, being struck or run over, or due to other miscellaneous causes, a total of 25 passengers or travelers being killed in connection with the operation of trains." During the year ended June 30, 1936, there were reported to the I.C.C. a total of 1,464 collisions and 4,656 derailments, involving deaths of 158 persons and injuries to 1,095.

During the calendar year 1935 there were 3,933 accidents at highway grade crossings, resulting in the death of 1,680 persons and the injury of 4,658. Automobiles were involved in 3,504 of these and 72 derailments of trains resulted from them. On December 31, 1935, there were 234,231 grade crossings of railroads with highways, a net decrease of 1,184 as compared with the number at the close of 1934.

Steel Corporation Opens Plate Mill at Homestead

THE Carnegie-Illinois Steel Corporation, a subsidiary of the United States Steel Corporation, officially opened a new 100-in. semi-continuous plate mill at Homestead, Pa., with an inspection by 400 leaders in the steel and steel fabricating industry on January 15. This inspection, which was headed by Myron C. Taylor, chairman of the board, and William A. Irvin, president of the United States Steel Corporation, and Benjamin J. Fairless, president of the Carnegie-Illinois Steel Corporation, was followed by a dinner at



A Finished Plate on the Cooling Beds

Pittsburgh, at which President Irvin announced that the corporation would start at once on a further program of expansion of its facilities in the Pittsburgh district, involving an expenditure of $60,000,000 for new hot strip and cold reduction mills with an annual capacity of 600,000 tons at Clairton, a 1,000,000 ton slabbing mill at Edgar Thompson works, Braddock, and miscellaneous additional power and other facilities in that vicinity.

The new plate mill at Homestead was built at a cost of $12,000,000 to roll plates ranging from 20 in. to 90 in. in width and from 3/32 to 5/8 in. in thickness of high tensile (cor-ten, sil-ten and man-ten) steel, alloy steels and commercial carbon steel. It has a capacity, based on a six-day week schedule of 729,000 gross tons a year. It is designed to convert slabs ranging up to 9 in. in thickness and 54 in. in width into plates of the dimensions given above. The entire mill is electrically operated and is so designed that the entire rolling from the time that a heated slab leaves the re-heating furnaces until it passes the last finishing stand requires only 90 seconds.

The essential features of the new mill are a two-high scale breaker, a four-high spreading stand or broadside mill, a horizontal slab edging press, a vertical reversing edging stand, a four-high reversing roughing stand, a double pinch roll device serving as a scale breaker, four four-high finishing stands and the runout and transfer tables, leveler rolls, shears and stacking beds. The four-high reversing hot mill is the first one ever installed in a tandem mill, making possible quick adjustments in schedules. An innovation of this mill is a rocking shear designed to cut plates into desired lengths without bow or arch.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading for the week ended January 9 totaled 698,529 cars, an increase of 110,576 cars or 18.8 per cent above the preceding week, an increase of 83,676 cars or 13.6 per cent above the corresponding week in 1936, and an increase of 145,011 cars or 26.2 per cent above the corresponding week in 1935. All commodity classifications showed increases over the preceding week, and all commodity classifications except grain showed increases over last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loadings
For Week Ended Saturday, January 9, 1937

Districts	1937	1936	1935
Eastern	157,502	140,809	129,315
Allegheny	146,898	119,684	107,195
Pocahontas	54,669	46,278	40,276
Southern	105,997	88,418	82,524
Northwestern	77,758	74,142	65,835
Central Western	102,987	93,060	82,280
Southwestern	52,718	52,462	46,093
Total Western Districts	233,463	219,664	194,208
Total All Roads	698,529	614,853	553,518
Commodities			
Grain and Grain Products	29,887	31,764	26,271
Live Stock	15,141	14,886	15,350
Coal	169,407	152,755	131,786
Coke	11,764	8,781	6,651
Forest Products	29,909	26,184	19,919
Ore	9,718	6,470	3,612
Merchandise L.C.L.	157,555	148,264	149,972
Miscellaneous	275,148	225,749	199,957
January 9	698,529	614,853	553,518
January 2	587,953	541,826	497,274
December 26	.....	562,218	466,688
December 19	.....	729,696	600,666
December 12	.....	738,747	616,650
Cumulative Total, 2 Weeks	1,286,482	1,156,679	1,050,792

Car Loading in Canada

Car loadings in Canada for the week ended January 9 totaled 45,005 cars, as against 37,290 for the previous week and 34,458 cars for the week ended January 4, 1936.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
January 9, 1937	45,005	26,316
January 2, 1937	37,290	23,164
December 26, 1936	36,152	25,016
January 4, 1936	34,458	20,244

THE GREAT WESTERN OF GREAT BRITAIN has recently named one of its locomotives—No. 6028—the "King George VI" in honor of the present British monarch. The locomotive is described as one of the most powerful in that country, being of the four cylinder type with a tractive force of 40,300 lbs. The first of the G. W. R. "King" class locomotives—No. 6000—was named after the late King George V, and in 1927 it was sent to the United States to participate in the Baltimore & Ohio Centenary Exhibition.

Motor Transport Section

Inter-City Truck and Trailer Arriving at a Local Station

Building a Rail-Highway Co-ordination System

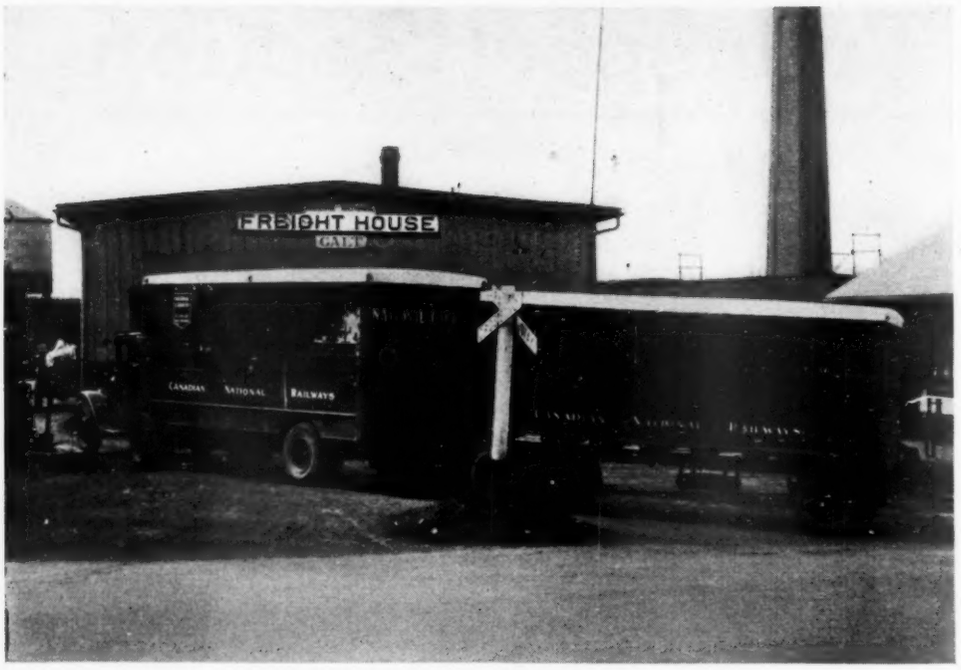
Canadian National proceeds slowly but surely in inaugurating auxiliary motor truck service

Part 1

FOR the purpose of making a thorough experiment with co-ordinated rail-highway service, and in the hope that such an experiment might lead to a solution of the problem of highway competition, the Canadian National began a co-ordinated plan of operations on March 6, 1933. The original plan was to determine, through experimentation, the proper course to pursue, and remarkable results have been achieved, while the scope of the operations has been broadened materially. As one indication of the success of the plan, the hours of freight-shed truckers in the Central region were 89,832 greater in 1935 than in 1934, while similar increases were required in the rest of the station staff. Still further increases will be shown when the complete figures for 1936 are available. As will be shown by figures quoted later, a large tonnage of merchandise freight has been regained from highway competitors. Many changes have also been made in rates and packing requirements, which are described in Part II of this article to appear in the Motor Transport Section next month.

The experiment has been conducted on the Central region under the personal direction of W. A. Kingsland, vice-president of that region. The limited area in which the experiment was begun originally has been expanded until the plan now applies between stations not more than 375 miles apart, between Sarnia, Windsor and the Niagara frontier on the west and south, Quebec City on the east and North Bay and Sudbury on the north. Rail services, including the incidental handling of shipments at stations, have been completely reorganized, and overnight delivery is now available between the principal stations within a distance of 375 miles in the area where the pick-up and delivery service applies.

This new service was possible only through consideration and co-ordination of several factors including: Local cartage services between the freight sheds of the railway and shippers' and receivers' premises; station-to-station trucking services between stations where train schedules cannot be adjusted without added cost; adjustment in and speeding up of freight train schedules; the handling of less-than-carload traffic in the baggage cars of passenger trains; the acceleration of terminal switching to insure prompt placement at freight sheds of cars containing merchandise, and the switching of such cars from the freight sheds at a later hour in the afternoon in order to insure dispatch on the same day of



Trailer Units Are Used for Greater Flexibility on Inter-City Runs

freight received in the late afternoon; the revision of freight-shed loading lists and the elimination, so far as was practicable, of the transfer of shipments en route; and the staggering of the hours of service of freight shed and freight office employees to permit of early morning unloading from railway cars and prompt morning delivery, also to protect the loading and forwarding on the same day of shipments received late in the afternoon.

Trucking Services

There are 225 cartage agents, operating more than 750 trucks, under contract with the Canadian National in the Central Region. In the matter of local cartage services, it was deemed advisable, especially during the experimental period, to contract for such services with local men who were already in the cartage business. The local cartage agent was rapidly becoming extinct as a result of highway haulers' competition, and those that were left were eager to work hard to maintain their businesses. These people also owned equipment and were experienced in the business.

In the case of station-to-station truck routes; the C.N.R. serves as an agency to keep all the truckers informed regarding licensing requirements, insurance, changes in laws and other details with which a local trucker might not be familiar, and when necessary, the railway assists the truckers to obtain the required licenses, insurance, etc. The C.N.R. also specifies the number of units and the type of equipment to be used. The education of such cartage agents is important as they are prone to optimism and over-expansion if not under proper control. The station-to-station operators are usually paid on a straight vehicle mileage basis, regardless of the tonnage handled. This permits the C.N.R. to have a much freer hand in the establishment of truck

A Fleet of Collection and Delivery Trucks Ready for Action

routes than would be the case if the local trucker had to gamble in the matter of securing enough tonnage to pay his expenses.

When either improved service or economy, or both, were evident, the railway instituted station-to-station trucking services, some of which will be described in detail later. Services of this character at present in effect in Ontario are:

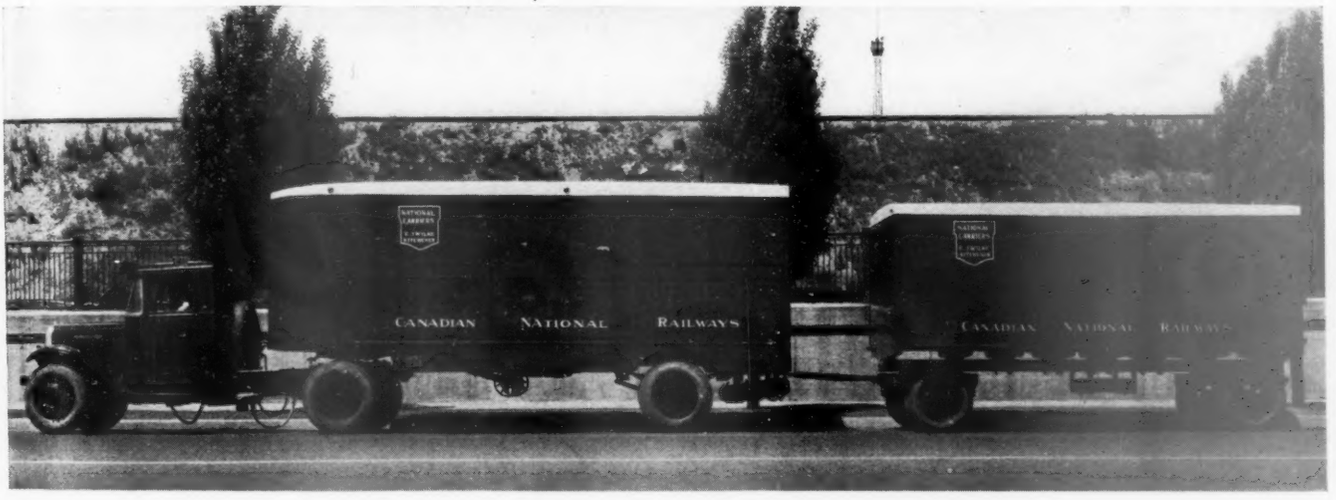
	Miles
Kitchener-Preston-Hespeler-Galt-Brantford	43
St. Thomas-London	18
Toronto-Weston	5
Toronto-New Toronto	7
Oshawa-Bowmanville	9
Toronto-Oshawa	32
Oshawa-Whitby-Port Perry	21
Napanee-Deseronto	7
Sudbury-Copper Cliff	3
Coburg-Port Hope	5
Belleville-Picton	25
Hamilton-Burlington	12
Hamilton-Dundas	4
St. Catharines-Merritton	3
St. Catharines-Thorold	4

Fast overnight service in this area is brought about by the greater flexibility of the motor truck in certain operations, and the close scheduling of truck-rail-truck hauls, involving one or more of the routes mentioned above.

As an example of how these station-to-station operations are conducted, the truck lines in railway service centering in Oshawa, Ont., may be cited as typical. Oshawa is a busy industrial town, 32 miles east of Toronto, and is the home of the largest automobile manufacturing and assembly plant in Canada, as well as several other large industries. At one time, the C.N.R. enjoyed a very considerable merchandise traffic into and out of Oshawa, but, since the city is situated on several excellent highways, independent truckers made large inroads into this business. The provision of pick-up and delivery service revived the traffic to a certain extent, but in view of operating conditions, the railway could not provide economically the service that was available by truck, and therefore, could not hope to secure any substantial increase in traffic.

The inauguration of station-to-station trucking in July, 1935, however, brought an abrupt change in the picture, since, by the use of trucks, the railway was able to compete in the way of service. During the last six months of 1935, a 54 per cent increase in tonnage over the corresponding period of 1934 into and out of Oshawa was shown by the railway, and figures so far available show that the 1936 traffic was about 57 per cent over that of 1934.

The service in Oshawa and vicinity has been worked out as follows. Each business day morning a 4-ton truck hauling a 4-ton trailer leaves Toronto at 9:30 a.m., arriving at Oshawa, 32 miles distant, at about 11 a.m. Merchandise for local delivery in Oshawa is loaded on the truck, which, after spotting the trailer at the freight-house, makes the local store-door deliveries. Meanwhile, a 4-ton truck has been dispatched from Oshawa at 9:50 a.m. for Bowmanville, 9 miles distant. This truck handles the merchandise shipped from Montreal the previous evening and set out by a through manifest train at Oshawa in the early morning. This truck delivers its freight and then picks up freight at Bowmanville until noon or slightly later, when it returns to Oshawa, arriving there before 1 p.m. Meanwhile, the trailer from Toronto has been unloaded, and the truck loads such of this freight as is destined for Bowmanville and takes it to that city. There it makes its second delivery and pick-up of the day, returning to Oshawa in time for the Bowmanville merchandise to be loaded for the fast overnight train to Montreal, as well as connecting with the truck-trailer for Toronto. While the trailer of this latter unit has been parked at the freight-house and being loaded with merchandise from Bowmanville and other points, the truck has been making afternoon pick-ups, and, at 5 p.m., the truck and trailer leave for Toronto, arriving there in time to connect with the trans-continental and other fast merchandise trains.



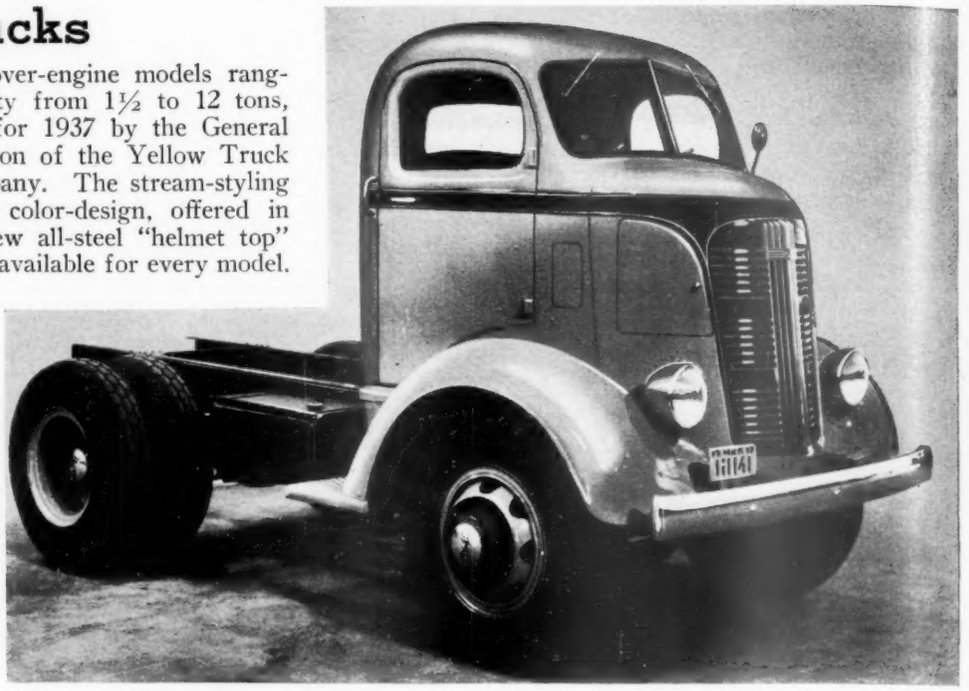
The Canadian National Supervises the Type of Equipment To Be Used

The third trucking route out of Oshawa is protected by a heavy-duty 4-ton truck. This truck leaves Oshawa after the Toronto truck arrives in the morning, and serves Whitby, Brooklyn and Port Perry over a 21-mile route. As soon as its deliveries have been made, the truck makes pick-ups and returns to Oshawa in time to aid in making the local Oshawa pick-ups. This unit also handles express along its route for the Canadian National express department.

While each of the other trucking operations differs in some details, the Oshawa operations are typical. The manner in which the co-ordinated trucking is handled in Toronto and vicinity, as well as the results obtained from the various experiments in rates on merchandise traffic, will be described in Part II of this article, which will appear in the Motor Transport Section next month.

New G. M. Trucks

NEW stream-styled cab-over-engine models ranging in carrying capacity from 1½ to 12 tons, have been announced for 1937 by the General Motors truck and coach division of the Yellow Truck & Coach Manufacturing Company. The stream-styling is emphasized by Dual-Tone color-design, offered in twelve color combinations. New all-steel "helmet top" cabs, standard and de luxe, are available for every model.



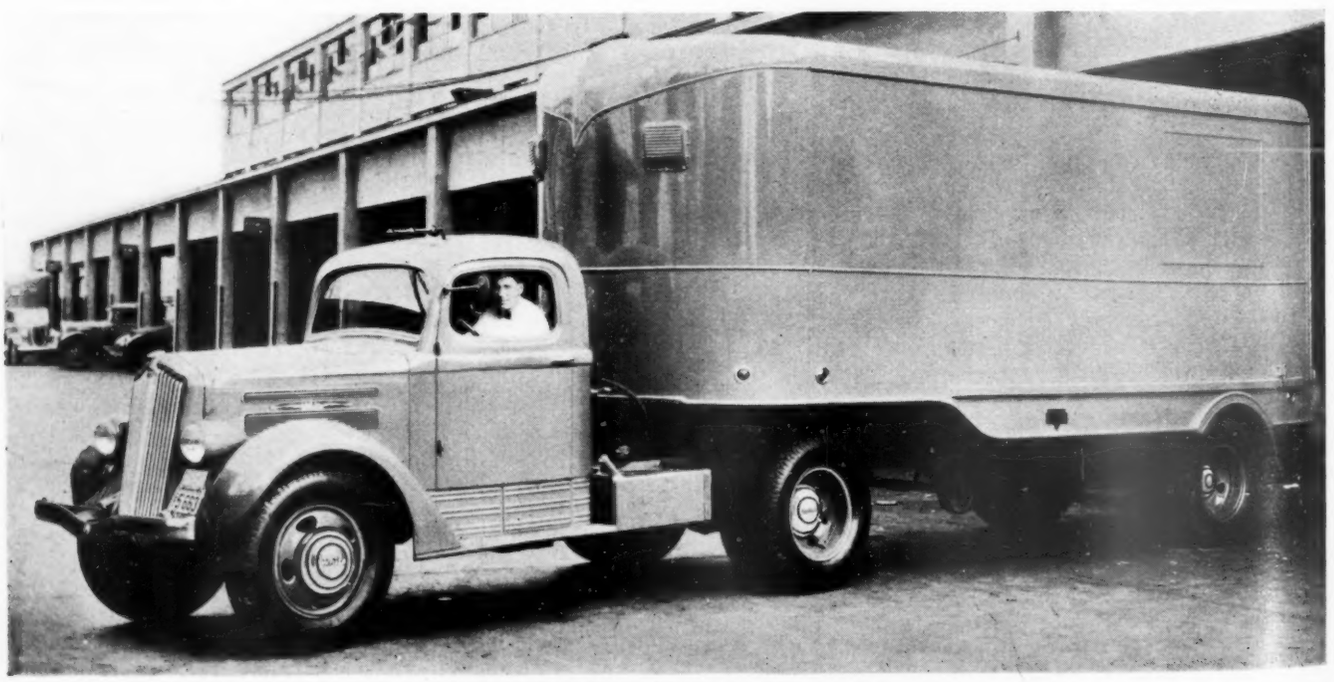
The New G. M. C. Tractor Is of the Cab-Over-Engine Type

The GMC line also includes a new group of trailers, with such improvements as heavier frames; new cast steel support legs; wider, re-inforced support wheels; straight shaft with folding type crank handle; heavier springs; rubber-bushed radius rods; larger spring brackets, spring pins and spring shackles; and improved lower fifth wheel construction.

New Low Priced White

THE White Motor Company has entered the low-priced field with an addition to its line of trucks for 1937. The new models will be streamlined and will make available a group of optional features in wheelbases, transmissions, rear axle ratios, and tire sizes to meet the requirements of specific operations. A feature of the new series is a White six-cylinder engine of 250 cu. in. displacement, having lightweight pistons and a water-cooling system for the valve seats, which provides a constant flow of cooling water against that portion of the cylinder block surrounding the exhaust valve seats, thus eliminating block warpage and valve pitting. The new trucks offer a choice of five wheelbases, from 136 to 196 in., and the trailers two wheelbases, 136 and 148 in.

Safety features on the new models include four-wheel hydraulic brakes with 270 sq. in. of lining area, a 70 h.p. motor developing 165 ft. lb. torque, proper chassis weight to insure ruggedness, air-ventilated cabs with insulated floor boards and twin-lever steering gear.



One of the New White Tractor-Trailer Outfits

One of Six New White Buses Recently Added to the West Virginia Transportation Company's Fleet

Giving West Virginia Bus Service

Baltimore & Ohio subsidiary provides safe, convenient service in mountain territory

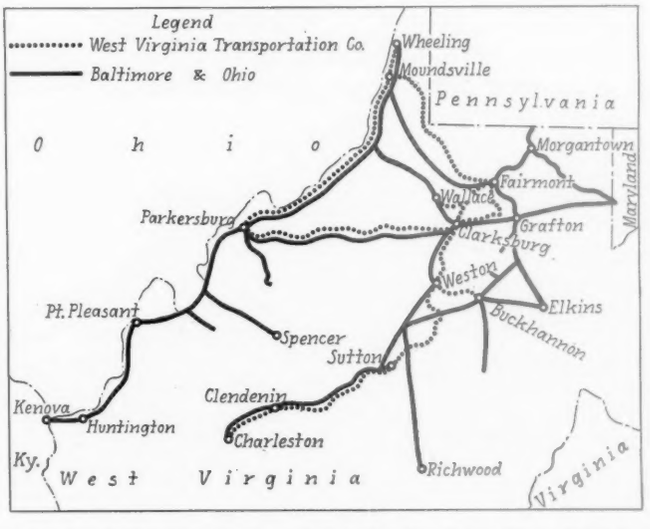
AS will be seen from the accompanying map, the rail lines of the Baltimore & Ohio cover all but the southern portion of West Virginia thoroughly. Several main lines and many branches serve this mountainous section, and, long before the state had any highways, passenger service on this maze of lines was a difficult and often expensive operation. To solve this problem, the B. & O. organized a bus-operating subsidiary, the West Virginia Transportation Company, on January 1, 1929. Beginning with a few short lines, this company has built up a comprehensive bus system in the B. & O. territory of West Virginia. Headed by a railway man, the transportation company has achieved an excellent record for safety and dependability. It was also one of the first bus companies to co-ordinate routes with those of another company to avoid wasteful and needless competition, and it has inaugurated a stamp system for handling packages and newspapers that has built up a profitable business.

Routes Operated

The map also shows the routes operated by the West Virginia Transportation Company. The first services were disconnected lines, largely for replacement of expensive branch line train service, and the routes were so isolated from each other that maintenance and supervision were difficult. In the past eight years, however, these routes have been extended so that, with the exception of the Hancock-Berkeley Springs line, six miles long, in the eastern part of the state, all of the lines are co-ordinated to center at Clarksburg. In fact, the schedules are so arranged that each bus arrives at the main garage and shops in Clarksburg for inspection at least once every 24 hours. This is important in the rough mountain territory, where the demands on the equipment are great.

This co-ordination of lines has also permitted the building up of a large and profitable interline business. The lines of the West Virginia Transportation Company make close connections with other bus lines at Wheeling for all points north and west and at Charleston for southern points. In addition, close connection is made at Clarksburg on the Clarksburg-Charleston route with through trains of the B. & O. to and from the east.

The service between Clarksburg and Charleston and



How the Baltimore & Ohio and Subsidiaries Serve West Virginia

between Parkersburg and Wheeling, is co-ordinated with that of the Atlantic Greyhound Lines. In both cases, the two companies operate between the terminals along somewhat different routes, but it is the through business that constitutes the principal source of revenue. Such through business, however, is not of sufficient volume to justify the expense of highly competitive duplicate service, and, some four years ago, the two companies decided upon co-ordination of the routes mentioned.

This permitted the abandonment of several schedules, without inconvenience or less satisfactory service to the public. The joint use of terminals and ticket-selling facilities provided further economies. The interchangeability of tickets provided a more flexible service, the joint instead of individual sales campaigns increased the business. The entire plan changed an operation that was becoming unprofitable for both companies into a source of revenue for both.

The West Virginia Transportation Company also co-ordinates its schedules with those of its parent railway. The railway and bus tickets are interchangeable and good for any portion of the journey on either medium of transportation that suits the needs of the purchaser.

Interior of One of the New Buses

Equipment

The West Virginia Transportation Company operates 36 units of highway equipment. Six of the buses are part of a fleet of 28 recently delivered to the Baltimore & Ohio by the White Motor Company. The other 22 of this order were placed in the train connection bus service operated by the B. & O. in the New York metropolitan district, on January 1. These new buses are streamlined and those in the New York operation are completely air-conditioned. The latter were styled inside and out by Otto Kuhler, consulting engineer of the Baltimore & Ohio, and have the same decorative and color scheme as have the railway's streamlined trains.

Of the total fleet of the West Virginia Transportation Company, 31 buses are of the through type and 5 of the city type. These latter are used in Grafton, W. Va., where the transportation company took over urban transportation following the abandonment of the street car line that formerly served the city. Shortly after the city bus service was established, it was extended a few miles to serve a large dam site nearby, and business in connection with moving the men employed in the construction of the dam has been heavy and profitable.

Maintenance is taken care of in the large central garage and shop at Clarksburg. The company also owns garages at Parkersburg and Wheeling, where minor servicing is done. A garage is rented at Grafton, where buses are stored, washed and cleaned. The two buses used on the isolated run in the eastern part of the state are maintained by a service man sent from Clarksburg at intervals.

Operating Safely

The mountain roads over which the West Virginia Transportation Company operates are narrow and crooked in many places, are subect to severe weather conditions in the winter, and reach elevations as high as 1,600 ft. Nevertheless, no passenger has been killed or seriously injured since operations began.

This has been brought about by close supervision and careful training. The manager of the company hires each driver personally, and the labor turnover has been very small, since all the drivers are natives of West Virginia. As a rule, only men accustomed to driving heavy vehicles in the mountains are hired, and all newly hired drivers are given a training course by driving with experienced men for some weeks before taking a bus out by themselves. They are instructed to be good neighbors as well as good drivers, and the company has become popular through the willingness of its drivers to stop and assist in case of accident.

The Stamp System

A parcels service was started originally as a convenience to patrons, and, since the inauguration of the stamp system, has become an excellent revenue producer, the buses handling quite a number of newspapers and parcels, including a considerable tonnage of ice cream. Stamps are sold to all prospective shippers using this service, and they are affixed to the parcels in amounts governed by the weight of the parcel and the distance to be handled. No waybills or other paper work are necessary, and claims on such traffic have been practically non-existent.

Austria Resumes Motor Transport Regulation

ON SEPTEMBER 30, 1936, the Austrian government cancelled its motor transport regulations that had been in effect for some four years. It was planned to have free and open competition for at least a year, during which time data were to be obtained on the rail-highway problem, and new regulations adopted, based on this study. The chaos that resulted in the transportation industry, was so great, however, that, after less than eight weeks, with the railways losing money and highway truckers going bankrupt because of unrestrained rate-cutting, the former regulations were again put into effect by common consent of all carriers. The regulations as they now stand limit trucks, both private and common carrier, in the distances over which they may operate in competition with the railways, and provide for uniform rates and taxes.

Motor Carrier Act Administration

Interstate Commerce Commission insists it must have larger appropriation to carry on its work

WASHINGTON, D. C.

FINDING itself swamped with the volume of work involved in the administration of the motor carrier act the Interstate Commerce Comission so far has been disappointed in the results of its requests for appropriations for the purpose. Its original estimate of the amount required for the first year under the act, beginning July 1, 1936, was $3,100,490, but Congress allowed it only $1,700,000, a reduction of approximately 45 per cent. The commission later submitted a supplemental estimate to the Bureau of the Budget showing that an additional appropriation of about $1,300,000 would be required for the current fiscal year but the Budget estimates recently submitted to Congress by the President allow only $2,450,000 for the fiscal year 1937.

Congress will have an opportunity to increase the amount if it desires, after hearing testimony of representatives of the commission and others before its committees, but unless the amount is increased the commission feels that it will be considerably handicapped in its efforts to administer the law without a great deal of delay. The total appropriation for the commission's work recommended by the Budget bureau is $9,939,500.

Peak Load at Start

This subject was discussed at some length by the commission in its recent annual report to Congress, in which it pointed out that the Bureau of Motor Carriers at the date of the report, November 1, employed a total of 653 persons, of which 452 were in Washington and 201 in the field, and that there had been filed with it approximately 80,000 applications for certificates, permits, or licenses under the grandfather clauses of the act, while additional applications were coming in at the rate of about 10 a day. It also had to deal with about 40,000 tariffs filed with it initially in addition to the numerous changes from day to day. The report pointed out that the commission had little opportunity to "go slow" in administering the law, because its requirements became effective on specified dates and that the plan of regulation prescribed in the law is both comprehensive and complete so that the peak of the work came very early.

"As to the requirements covering applications for certificates, permits, and licenses, we had little discretion as to when they should become effective," the commission said. The same was true as to the requirements covering tariffs and schedules, and as to consolidations, mergers, and acquisitions of control. The requirements as to these matters are specifically set out in the act, and we could not postpone the effective date of any of them beyond April 1, 1936. It was imperative, therefore, that we establish first those sections of our organization which were to deal with such provisions. On the other hand, there are parts of the work, such as research and statistical work and certain details of the safety and accounting provisions, which have not been undertaken but which are essential if the administration of the act is to be a success and the purposes of the legislation accomplished. To do this it is imperative that additional funds be made available.

"In various respects the work under the act begins with a peak at the very outset and in all probability will thereafter diminish. It is highly important, however, that we be organized and equipped to handle this peak effectively and promptly. Otherwise log jams will result in certain sections which it will be very difficult to break up and remove. In certain parts of the work there is serious danger of such congestion at this moment.

"To illustrate the statement that in many cases the peak of the work comes at the start, this is plainly true of the applications for certificates and permits under the "grandfather" clause, of which about 80,000 are pending. Applications for new operations and extensions have been and will be filed in considerable number, but never again will 80,000 be filed to be dealt with at one time. This is also true of the tariffs and schedules, of which 40,000 were initially filed. There will be continual changes in these publications, but never again will 40,000 be filed at one time, to be docketed, recorded, and checked. The same will be true of the initial work in connection with the establishment of uniform systems of accounts. It is also true of the enforcement work, of the legal work in connection with the construction and interpretation of the act, of the correspondence work, and of the work required in responding to the inquiries of callers. In addition, at the outset, the early cases all involve new principles and because of their importance as precedents require unusual care in their consideration and in the preparation of reports and orders.

"The situation in the motor-carrier industry when the act became effective was no less than chaotic. The work necessary to reasonable administration should go forward without delay if the main purposes of the legislation are not to fail.

"There is a growing feeling upon the part of the many carriers who are making a sincere effort to comply with the law that they must be protected by adequate enforcement of the law as it affects those who are now evading its provisions. This viewpoint is sound and well recognized by us. Without a further appropriation for the current year, however, we are unable to do all that should be done in this respect, nor shall we be able to handle the other work as expeditiously as the welfare of the public and the motor-carrier industry demands.

"In conclusion, we are convinced that the Motor Carrier Act, 1935, establishes a sound and workable system of regulation for motor carriers, and while there are certain provisions that might well be strengthened or clarified, we do not feel that we should recommend amendments to the act until we have had a longer experience in its administration."

The applications which had been filed at the date of the report were classified as shown in the table.

Protests have been presented against granting applications under the "grandfather" clauses in about 40,000 cases, chiefly upon the ground that, in whole or in part, the claims are not in accord with the facts. These protests have been made largely by railroads, other motor carriers, and state commissions.

"The system of certificates, permits, and licenses is of

basic importance in the scheme of regulation, and it is, therefore, vital that we act on the pending applications with the least possible delay," the report said. Many of them did not supply all the information requested and essential to action, and the corrections of these deficiencies has entailed, and is entailing, much labor on the part of the section, the amount of which can be appreciated when the great number of applications is borne in mind. The facts in regard to bona-fide operation on the 'grandfather' date, including the routes and character of traffic handled, are being checked on the records of the state authorities, and with their help, and also by our district directors and supervisors in the field. There has apparently been a tendency on the part of a considerable number of applicants to expand their claims unduly. If hearings are necessary in all the protested cases, action on the applications will be prolonged over a very long period of time, especially if we are unable to increase the staff of the Bureau materially. We hope, however, through the plan of checking which is being followed and with the cooperation of applicants and protestants, to reduce the necessity for hearings to a comparatively small percentage of cases and to be able to issue a very large number of the certificates, permits, and licenses within a comparatively short time."

Classification of Motor Carrier Applications

Filed under "grandfather" clauses:			
Prior to Feb. 12, 1936:			
Property:			
Carriers	75,977		
Brokers	1,551		
		77,528	
Passengers:			
Carriers	2,842		
Brokers	58		
		2,900	
Total			80,428
After Feb. 12, 1936:			
Property:			
Carriers	3,141		
Brokers	64		
		3,205	
Passengers:			
Carriers	118		
Brokers	2		
		120	
Total			3,325
For determination of status			167
Operations begun between June 1 or July 1, 1935, and Oct. 15, 1935:			
Property:			
Common carriers	110		
Contract carriers	85		
		195	
Passengers: Common carriers		65	
Total			260
New operations after Oct. 15, 1935:			
Property:			
Common carriers	630		
Contract carriers	678		
Brokers	15		
		1,323	
Passengers:			
Common carriers	122		
Contract carriers	6		
Brokers	5		
		133	
Total			1,456
Grand total			85,636

Many Violations

The commission has received some 3,000 complaints of violation of various provisions of the law and has recently begun taking steps to bring about a vigorous enforcement, although many complaint cases have been closed when voluntary compliance by the carrier has been secured and the efforts of the field forces are directed toward securing voluntary compliance where possible. The commission has recommended to the Department of Justice criminal prosecution in several cases where the proof showed a clear and intentional violation of the law and injunction proceedings have been recommended in other cases.

At the request of the commission, Federal District Judge John Paul at Roanoke, Va., on January 14 issued a preliminary injunction against Paul J. Pearsall, a trucker. The injunction prohibits the trucker from operating in interstate commerce until he has filed an application with the commission.

A series of hearings from which the commission will obtain information to guide it in prescribing regulations as to the hours of service of bus and truck employees was begun at Washington on January 11, before Examiner R. W. Snow of the Bureau of Motor Carriers. After the Washington hearing the schedule called for additional hearings at Boston on January 14, Atlanta, January 18, Dallas, January 21, Los Angeles, January 26, Seattle, February 1, Chicago, February 8, and Washington on February 11. At the Washington hearing a large number of truck drivers testified as to their hours and working conditions. Representatives of the unions favored a limitation to eight hours a day and 48 hours a week, but many non-union drivers preferred that rest periods be prescribed rather than the maximum number of hours.

Divison 5 of the commission on January 19 issued a new order amending that of July 11, 1936, in the matter of the filing of contracts by contract carriers, which it says is in the judgment of the commission necessary and desirable in the public interest in view of the special nature of the services performed by such carriers and by reason of the competitive situation now existing between them and common carriers. The order applies to all contract carriers of five classes:

1. Carriers of general commodities or any class or classes thereof, except commodities, other than those specified below, requiring special equipment;

2. Carriers of household goods, office furniture, and office fixtures and equipment;

3. Carriers of automobiles;

4. Carriers of moving picture films, accessories and theater supplies;

5. Carriers of refrigerated products, other than liquids in tank trucks.

These are required, on or before February 1, 1937, to file with the commission, publish and keep open for public inspection, in the form and manner prescribed in Tariff Circular MF No. 1, as amended, so far as the provisions of said circular are applicable, copies of each and every contract existing and in force on said date containing the charges of such contract carriers for the transportation of property in interstate or foreign commerce, and any rule, regulation, or practice affecting such charges and the value of the service thereunder, and that the contracts so filed by any such contract carrier shall be in lieu of any schedule or schedules theretofore filed by such contract carrier, and the filing of such contracts shall cancel any such schedule or schedules. The term "line-haul" or "over-the-road" contract carriers, means all contract carriers other than those who operate wholly within a municipality, or between contiguous municipalities, or between such municipality or municipalities and zones adjacent thereto and commercially a part thereof:

It was further ordered that every such contract entered into or effective on or after February 1, 1937, shall be filed, published and kept open to public inspection as required in relation to existing contracts, in the form and manner prescribed in Tariff Circular MF No. 1, as amended, so far as the provisions of said circular are applicable.

Odds and Ends . . .

Christmas Gifts

The Lionel Company, makers of toy trains, estimate that four million children in this country now own such toys.

First Bay Bus Crossing

The first bus to cross the San Francisco-Oakland bridge after it opened on November 12 was one of the new fleet of air-conditioned coaches of the Santa Fe Trail System.

Cold Comfort

It is strange that, in one of the hottest areas in the United States, just west of Needles, Cal., on the Atchison, Topeka & Santa Fe, two adjacent stations should be named Siberia and Klondike respectively.

Competition Eliminated

According to the Department of Commerce, a government decree has been issued in Turkey, effective November 1, 1936, prohibiting the transportation of merchandise on the backs and heads of human beings in competition with the state railways and truck lines.

Railway Musicians

The Southern Pacific band has added to its already large list of honors. In the Armistice Day celebration at Oakland, Cal., the railway musicians, in competition with 18 other outstanding bands of northern and central California, walked off with first prize of $150.

Smallest Railroad

DETROIT, MICH.

TO THE EDITOR:

We note from your "Odds & Ends" column that the smallest railroad was reported as the Warrenton railroad, listed as three miles long. To my knowledge, the East Washington Railway Company, with head-office at Seat Pleasant, Md., is only 2.09 miles long, as listed by the "Official Guide."

H. G. ST. AUBIN

All-American

Several football coaches in the southeast have combined to award to W. G. Peoples the mythical but desirable honor of "All-American" passenger representative. Peoples, who is traveling passenger agent of the Southern Pacific at Birmingham, Ala., has the record of having secured the business and accompanied the football teams of the southeast on nine separate transcontinental trips in the past decade, as well as on many shorter trips into Texas, and it is claimed that he has procured for the S. P. more football player passenger miles than any other passenger representative in the country.

Non-Talkers

The reticence of the traveling Englishman is so well known as to be traditional and it has taken a new slant recently. English passenger cars are labeled "Smoker" and "Non-Smoker" respectively, and some wag wrote in recently to the London Times suggesting that they should be labeled "Talker" and "Non-Talker" as well, so that the Englishman who desired to travel wrapped in his own thoughts might do so undisturbed. This facetious suggestion was seized upon seriously and a large number of Englishmen are now writing serious letters to the Times pointing out the merits of "Non-Talkers" and urging that the railways adopt the innovation at once.

Beefy Crews

The Delaware & Hudson goes back 30 odd years to claim a record for the heaviest crew that ever ran a train. They claim a world record for Conductor Charles Saxton, weight 272 lb., Trainman John Redmond, 328 lb., and Baggageman Joseph Nerling, 278 lb., or a total train crew weight of 878 lb. That may be a record for train crews, but, at Cleveland, Tenn., on the Southern, years ago, there was an engineman on a switcher who weighed 436 lb. Even with a small fireman, this would probably make up the world's heaviest switch engine crew. On the other side of the scales, the Norfolk & Western, if memory serves correctly, had a very small conductor, weighing not much more than 100 lb., with a deep booming bass voice, who occasionally ran with a small trainman. If the baggageman was also small, the crew should have weighed considerably less than 400 lb. all together, which would also constitute a world's record.

Canadian National Department

This week, the Canadian National occupies much of our attention, as its employees have accomplished the following in the realm of the peculiar and unusual deemed worthy of notice in these columns:

Randall Babcock, railway police officer, Sackville, N. B., claims the railway moose championship. Babcock got one of the huge animals with three quick shots recently, a 15-pointer, with a 38 in. antler spread.

C. W. Lutes, 66-year-old conductor at Enfield, N. S., recently won $150,000 by holding the winning ticket in the Irish Sweepstakes. Unlike most railway men, Lutes claims that he does not intend to use the money for travel, but will stay at home to enjoy it.

Gordon Potter, baggageman at Gananoque, Ont., is one of the world's best single and double blade paddlers. He has won 74 trophies, including eight Canadian and two international championships. Potter has also won the Toronto exhibition races three years in succession and was one of the Canadian paddlers who went to last year's Olympic games in Berlin.

By laying down five lines of hose in 1 min. 41 sec., the fire brigade of Biggar, Sask., established a record for this sort of activity. The chief was a Canadian National employee until recently, and the fire brigade, a volunteer organization, consists 90 per cent of Canadian National employees.

G. C. Thompson, carman's helper in the Canadian National shops at Brandon, Man., has attained many prizes and considerable fame as a pen and ink artist and etcher. At the present time, several examples of his work are on exhibition in the British Museum in London, and he is the only overseas artist to be thus honored.

Harry Sam, section foreman at Cisco, B. C., must be one of the few, if not the only section foreman on this continent who is also an Indian chief. In addition to keeping his section along the Frasier river in proper line and surface, Sam also serves as chief of the Nakaia Indians. He has looked after both jobs for nearly twenty years.

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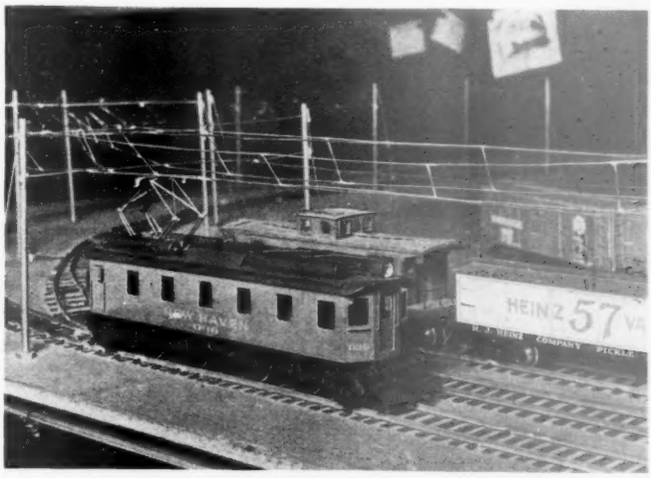

Part of the Unusually Complete "New Haven System" Built on Small Scale by F. W. Schlegel, Jr., Yonkers, N. Y.

NEWS

Reviews Dealings of Van Sweringens

Wheeler then halts probe to look over records of Stock Exchange

On January 15 Senator Wheeler announced that hearings of his committee investigating rail financing would be tentatively postponed until January 25, due to the fact that the committee investigators had come into possession of a large number of records of the New York Stock Exchange which had previously been refused the committee. These documents, Senator Wheeler explained, had to do with the stock listing practices of the exchange.

The hearing on January 14 was confined mainly to a discussion of the $30,000,000 issue of gold notes of the Van Sweringen Corporation when it was formed in April, 1930, and a loan of $39,500,000 to the Van Sweringen interests by a group of New York bankers. William C. Potter, chairman of the board of Guaranty Trust Company, and Joseph R. Swan, former head of the Guaranty Company, occupied the stand during most of the day's session. Senator Wheeler introduced exhibits which showed that the Cleveland Terminals Building Company, a Van Sweringen subsidiary, had used funds which it had borrowed to develop real estate holdings in the Cleveland area to buy various stocks both for cash and on margin from the Vaness Company and Paine, Webber & Co. Both Mr. Potter and Mr. Swan denied any knowledge of this trading in stocks in the open market by the Cleveland Terminals Building Company, and both stated that they did not approve of this type of business by a company which was organized to develop real estate. Francis Ward Paine, of Paine, Webber & Co., was also called to the stand and testified that his company had handled large stock purchases and sales for the Van Sweringen interests and had been their brokers for several years.

On Friday Senator Wheeler called to the stand Richard Whitney, former president of the New York Stock Exchange, and questioned him regarding the proposed listing of the $30,000,000 issue of gold notes by the Van Sweringen Corporation in 1930. Mr. Whitney testified that the listing of a stock on the exchange was a highly technical subject and that he did not feel qualified to discuss the subject, but that his assistant, J. M. B. Hoxsey, newly selected member of the Exchange stock list committee, was present and would be glad to answer any questions concerning the practice of listing.

Senator Wheeler had read into the record a memorandum from Mr. Hoxsey to the committee on stock list in which Mr. Hoxsey called attention to possible weaknesses in the financial structure of companies whose stock represented an equity in an equity. The reference was to applications of the Alleghany Corporation to list some bonds, preferred stock and no par voting common stock. Mr. Hoxsey said that "in commenting on this type of company, I have heretofore called attention to certain possible weaknesses in the financial structure and to the possibility that such corporations may come to be regarded as anti-social and thus be the object of political attack." Mr. Hoxsey also objected to the holding company of the type of the Alleghany Corporation which he said was tending to nullify the power of the Interstate Commerce Commission by its purchase of railroad stocks.

Status of Grade Crossing Projects

A total of 955 grade crossing projects, at a total estimated cost of $46,429,767, had been completed by December 31 under the federal government's $200,000,000 program, while 1,179 projects, at an estimated cost of $107,644,828, were under construction and 748, at an estimated cost of $18,606,144, had been approved for construction.

Effect of Revenue Act on Railroads Considered at Conference

Chairman Carroll Miller of the Interstate Commerce Commission conferred with the President and Secretary Morgenthau of the Treasury at the White House on January 14 on the subject of the commission's recommendation in its annual report that further consideration be given to the effect on the railroads of the surtax on undistributed earnings provided for in the revenue act of 1936.

Bill to Continue R. F. C. Passed by Senate

The Senate on January 15 passed the bill to extend the lending functions of the Reconstruction Finance Corporation until June 30, 1939. Chairman Jones of the corporation at a press conference expressed the opinion that there would be few additional loans to railroads this year. On December 31, 1936, the corporation had disbursed $517,126,239 in loans to railroads, of which $171,146,411 had been repaid.

Rail Labor Agrees on Wage Demands

"Big Five" brotherhoods vote to seek an increase of 20 per cent

A demand for a 20 per cent increase in wages estimated to cost the railroads of the country $116,600,000 annually if granted was voted by the representatives of the "Big Five" brotherhoods at a meeting at Chicago on January 20. Notice of the vote will be served as soon as possible on all the railroads individually in accordance with contracts. The demand will be the first advanced since the agreement of 1927. While only the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen & Enginemen, the Order of Railway Conductors, the Brotherhood of Railroad Trainmen and the Switchmen's Union of North America united in the demand, the remaining 17 brotherhoods will probably be urged to take similar action.

The vote for a twenty per cent increase demand on January 20 came after deliberation since January 12, and ended a deadlock which existed from the beginning. Enginemen and conductors, the higher paid group, favored a percentage increase, but this was opposed by the trainmen, firemen and switchmen, who sought to lessen the difference between the wages of the two groups by a flat increase. The enginemen and conductors proposed a 15 per cent increase, but late on January 19 the trainmen, firemen and switchmen offered a counter proposal calling for a 15 per cent increase for roadmen and a dollar-a-day increase for yardmen. The demand for a 20 per cent increase was decided upon late on January 20 after a full day's consideration.

Katy Fined $5,000 for Violation of Elkins Act

A fine of $1,000 on each of five counts, or a total of $5,000, was imposed upon the Missouri-Kansas-Texas by Federal Judge T. W. Davidson at Dallas, Tex., on January 15, for detaining cars without demurrage, in violation of the Elkins Act. The railroad was charged with holding cars of textile machinery at San Antonio, Tex., for La Industria Textil of Mexico City, until shipments of sufficient size could be assembled to permit the buyer to obtain a 2 per cent reduction in tariffs at the international border.

Promise Reduction of C.N.R. Capital

Speech from the Throne says bill to effect write-off will be introduced

"A true and correct understanding of the relationship between the adjusted accounts of the Canadian National and the Dominion public accounts as directly affecting the published net debt and annual budget of Canada," is the aim in recasting the capital structure of the government-owned road, according to the report dated March 22, 1935, made by George A. Touche & Co., chartered accountants to Hon. Dr. R. J. Manion, then Minister of Railways and Canals.

Legislation to give effect to the main recommendation of that report was promised in the Speech from the Throne, when Parliament opened in Ottawa last week, and will be submitted early in the session by Hon. C. D. Howe, Minister of Transport. Over $1,000,000,000 would be written off the books of the Canadian National if the first recommendation in the Touche report is acted upon in the proposed legislation. That total is made up as follows: Old Grand Trunk stock of $165,627,738, declared by the Grand Trunk Board of Arbitration of 1921 to be worthless; adopting the 1918 Board of Arbitration findings and writing down Canadian Northern stock from $100,000,000 to $18,000,000; writing out Dominion advances for deficits aggregating $324,074,527; writing out interest accruals of $459,486,186; writing out government grants in aid of construction represented by old Grand Trunk debentures amounting to $15,142,633.33.

The second recommendation deals with reclassification in the Dominion Public Accounts, the purpose being to place those public accounts and the balance sheet of the railway in agreement with one another.

The third recommendation is that Parliament authorize the exchange of the Dominion's present capital stock holdings and creditor claims in respect of corporate loans, advances, and interest accruals for shares of capital stock in the railway, the stated value of which at December 31, 1934, was estimated at $361,026,454.13.

The report added that it made little difference whether the new stock would be of par value or not.

Great emphasis is laid in the fourth recommendation upon the need of explanatory publicity to make clear to the investing and general public what is sought and accomplished in the adjusted accounts. "With the proposed change in the status of the Dominion from creditor to shareholder being made clear on the published balance sheet of the railway," reads the closing paragraph in this recommendation, "the correct conception at home and abroad of the consolidated financial position of the country should within a reasonable period become an established fact."

Anticipating and answering objections already made to the proposal, the Touche report asserts that the facts of capitalized deficits as impairment of shareholders' capital interest on deficits and so on are as definitely known today as they would be in the future; that obviously interest charges due the public could only be reduced by refunding at lower rates or by redemption through government financing in the capacity of shareholder; that the primary purpose of the plan "is to assist in the protection of the Dominion against misconceptions of its financial position when this is built up in conjunction with the accounts of the National System."

Illustrating the probable benefit of such a readjustment plan upon future financing for the railway, the Touche report refers to the effect in British investment quarters of the policy of carrying the old Grand Trunk capital stocks and the relative asset accounts at the face value of $165,627,738 on the balance sheet of the Canadian National since amalgamation, in the face of the findings of the arbitration board, which said they were of no value.

"We have reason to believe," the report says, "that this policy has in some measure contributed to the prolongation of the unfavorable impression abroad as to the position of the Dominion in the settlement of the Grand Trunk junior stockholders."

This report was discussed last session before the Special Committee on National Railways, but it was agreed that the legislative program was already crowded and it would be impossible to deal properly with this question until more time was given the government. How closely the report will be followed in the bill to be introduced by Mr. Howe is not disclosed, but it is believed the main features of the plan will be followed. In any case, a lively discussion, both in the House and in the special committee is anticipated.

Northwest Board Meeting

The Northwest Shippers Advisory Board will hold its fourteenth annual and fiftieth regular meeting at the Hotel St. Paul, St. Paul, Minn., on January 26. R. V. Fletcher, vice-president and general counsel of the Association of American Railroads, will be the principal speaker.

Reduction in Fish Rates Allowed

A reduction proposed by the railroads in the rates on fresh or frozen fish, in carloads, from points in New England and trunk-line territories to destinations in Official Classification territory, to meet motor truck competition, has been found justified in a report by Division 2 of the Interstate Commerce Commission accompanied by an order vacating the suspension of the tariffs which had been filed to become effective on October 15. The tariffs were suspended on protests by the Eastern-Central Motor Carriers' Association and other motor carriers but the commission held that there was no evidence to support their contentions that the proposed rates were unreasonably low. At present third-class rates, which are 70 per cent of the first-class rates, apply generally and the tariffs reduce this basis to rates equivalent to 55 per cent of the first-class rates.

Farmer's Stake in the Six-Hour Day

New booklet of Transportation Association discusses the proposal

The Transportation Association of America has recently issued a pamphlet discussing the proposed six-hour day for railroad labor from the standpoint of the farmer. The pamphlet includes arguments and statistics designed to enlighten farmers as to what the six-hour day would mean in higher transportation costs on agricultural products.

The discussion opens with a brief explanation of the railroads' role in enabling farmers to sell their products in distant terminal markets, pointing out in this connection how any impairment of railroads is a threat to the prosperity of agricultural producers. Next comes an outline of the six-hour day proposal followed by citations of statistics from the Interstate Commerce Commission's special study indicating that if such a limitation of hours had been in effect in 1930 it would have added some $630,000,000 to railroad operating expenses of that year. Applying the commission's estimate of a 22.2 per cent increase in railroad payroll expenses to 1936 operations it is estimated that the six-hour day last year would have increased costs of Class I railways by $400,000,000.

With reference to the ability of railroads to meet such increases in expense, statistics of net income since 1930 are quoted to show that such net has not since 1929 been sufficient "to equal the additional cost of a six-hour day, not to mention paying dividends."

Turning to the question of "Who will pay?" the pamphlet distributes a $630,000,000 per year increase in labor costs proportionately over all 1930 traffic. This distribution shows that freight traffic would have been called upon to bear 77.7 per cent of the increase or $486,990,000. A further break-down shows that products of agriculture would be assigned 12.4 per cent of the total or $78,405,400. The latter, it is pointed out, would not, however, constitute agriculture's total share of the cost of railway wage increases, since freight rates would increase also on goods shipped to farmers. Also, they would have to pay a part of the $87,000,000 increase which under the distribution would fall on passenger traffic.

Attention is next called to the fact that with the exception of the tire and tube industry, where average weekly earnings were $31.80, employees of steam railroads, with $31.70, received the highest average weekly pay of any important working group listed by the U. S. Department of Labor in statistics for September, 1936. There follows discussions of special considerations which have been given to railroad labor in various laws and of the increase in costs following the Adamson Act in 1916. The result of the latter it is stated in the long run was "fewer jobs rather than more jobs."

Arguments are presented to refute

charges that the railroads are over-capitalized and to explain why a large proportion of railroad capital is in the form of funded debt. Figures from the National Industrial Conference Board study of "Income in Agriculture" issued in December, 1936, are quoted to show comparative monthly earnings of farm hands, farm operators and rail labor. In 1935 the farm hands earned an average of $29.48 per month; farm operators, $48.25; and railroad labor, $137.75. Moreover it is pointed out, railroad workers "worked substantially shorter hours than farmers or farm hands."

Donald D. Conn, executive vice-president of the Transportation Association of America, discussed the six hour day proposal and other pending "make-work" bills in addresses at recent annual meetings of the American National Live Stock Association held in El Paso, Texas, on January 12, and of the American Fruit and Vegetable Shippers' Association, held in Chicago on January 15.

Rate Hearings Adjourned to January 26

Hearings before Commissioner Aitchison of the Interstate Commerce Commission on the proposals of the railroads for an upward readjustment of freight rates to offset in part the reduction in their revenues caused by the expiration of the emergency charges on December 31 were adjourned on January 15 until January 26. The railroads had completed presentation of their testimony on coal and coke and after the adjournment will continue with testimony on iron and steel.

Railroad Calendar

The Committee on Public Relations of the Eastern railroads has issued for 1937 its usual "Railroad Calendar" which computes in terms of average daily gross revenues the number of days receipts absorbed by each item of expenditure. Using gross revenue for 1935, the latest year available, the calendar shows that it took the receipts of 164 days for wages; 21 days for locomotive fuel; 55 days for materials and supplies; 34 days for all other operating expenses; and 25 days for taxes. To pay interest and other fixed charges in full required the receipts of the remaining 66 days and in addition the equivalent of receipts for 12 more days.

Reduction of Livestock Rates to Public Markets Proposed

Examiner A. S. Worthington of the Interstate Commerce Commission in a proposed report has recommended that the commission find that rates charged on stocker and feeder livestock, in carloads, from points in the western district to posted public livestock markets in eastern and southern territories are unduly prejudicial and unjustly discriminatory to the extent that they exceed, or may exceed, the basis contemporaneously applicable on shipments to the non-public markets east of the Mississippi river. The report does not find that the rates are in violation of Section 4. The case arose on complaints of corporations operating posted public livestock yards at points in Indiana, Ohio, Tennessee, Illinois, Kentucky, and Alabama.

Pennsylvania Completes Freight Car Building Program

The Pennsylvania has just completed work on 10,000 new freight cars, the construction of which was started early last year. These new cars, which cost approximately $25,000,000, the announcement states, constitute "the most important and extensive new equipment program in the Pennsylvania's history." Their building provided during the past year employment equivalent to 11,000,000 man-hours of work in the P. R. R. shops and the shops of equipment companies.

Meanwhile the Pennsylvania has engaged in the scrapping of 32,000 cars of older and less desirable types, but it points out that, with these cars removed from service and the new 10,000 installed, its freight handling capacity is greater than before. This is attributed not only to the superior design and larger capacity of the new cars but also to the improved operating methods which have shortened the road and terminal times of trains.

Railroad Bills in Congress

Representative Ramspeck, of Georgia, has introduced in Congress a bill, H. R. 2927, providing that freight rates between different rate-making or geographical sections of the United States shall be so adjusted as to cause no greater charge than the charge for the same or like classes of traffic moving wholly within the destination section, distance considered, and that wherever differences exist entitling carriers in one section to higher revenues than carriers in another such differences shall be recognized in divisions of rates among the carriers.

Representative Drew, of Pennsylvania, has introduced House Joint Resolution 122 to give directions to the Interstate Commerce Commission regarding the prescription of reasonable maximum and minimum port rates between inland points and the ports.

Long Island Upheld in New York City Fare Case

The New York Supreme Court for Kings County has refused to cite the Long Island in contempt because of that road's action in taking advantage of provisions of the Interstate Commerce Commission's reduced-fare decision which permit the charging of a minimum fare of ten cents and the adjusting of all fares upward to end in zero or five. The application for a contempt citation was made by the New York Transit Commission, which has regulatory jurisdiction in New York City.

When the I.C.C.'s reduced-fare order became effective June 1, 1936, the Long Island published a rate of three cents per mile for intrastate travel. The Transit Commission then went into court and forced the road to publish two-cents-per-mile coach rates within New York City, relying successfully on Section 57a of the New York Railroad Law which provides that a railroad operating within New York City and owned by another railroad may not charge a different rate for travel within that city than the parent railroad charges outside. The Pennsylvania's two-cents-per-mile rates brought the Long Island within the provisions of this law. The present decision points out that the Transit Commission must be bound by the full terms of the Interstate Commerce Commission order—it may not urge that effect be given to the provision that enabled it to insist upon a reduction of fare to two cents per mile and that no effect be given to other provisions.

Club Meetings

The annual dinner of the Traffic Club of Baltimore, Md., will be held at the Lord Baltimore Hotel in that city on Tuesday evening, February 2. The announcement states that this dinner "is to be an innovation in the annals of Baltimore Traffic Club history in that there will be no speaker." A program of entertainment has been arranged.

L. W. Wallace, director, Equipment Research division of the Association of American Railroads, will speak on "Research Within the Railroad Industry" at the next meeting of the New England Railroad Club to be held at the Hotel Touraine, Boston, Mass., on February 9.

The Car Foremen's Association of Chicago will hold its next meeting at 8 p.m. on February 8 at the Hotel La Salle, Chicago. At this meeting there will be a continuation of the discussion of the new A.A.R. rules of interchange.

More Attention to Maintenance of Draft Gears

In Circular DV-889 recently issued Secretary Hawthorne of the Mechanical Division, Association of American Railroads, calls attention to the fact that on June 9, 1936, W. J. Patterson, director, Bureau of Safety, Interstate Commerce Commission, advised that from the investigations of accidents attributable to draft-gear failures it is evident that the recommended practice rules covering inspection and maintenance of draft gears and attachments by car owners adopted by letter ballot in 1934 are not being complied with by some carriers as well as private-car lines. The circular urges the member roads and private-car owners to establish a program of draft-gear maintenance conforming to the A.A.R. recommended practice and requests that each railroad and car owner submit to the secretary of the Mechanical Division a copy of such instructions as may now be issued to carry out the recommended practice of the association.

Court Instructs C. G. W. Trustees Not to Pay Wage Claims

Trustees of the Chicago Great Western were instructed by the federal district court at Chicago on January 20 not to pay $60,000 of wage claims awarded to members of the "Big Five" brotherhoods by the National Railroad Adjustment Board for alleged violations of various contract rules covering hours of work as described in the *Railway Age* of October 10, page 530. In a memorandum opinion Federal Judge Charles E. Wood-

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Modern Streamlined Power, built by Lima for the new Southern Pacific "Daylight" trains, which will operate between San Francisco and Los Angeles.

LIMA LOCOMOTIVE WORKS, LIMA LOCOMOTIVE WORKS INCORPORATED INCORPORATED, LIMA, OHIO

ward said that if the employees wish to press their claims they must do it in civil suits. Trustees contended that there was no basis for the claims as the men had been adequately compensated for their work at the full union rates while the employees argued that arrangements of shifts by the company entitled the employees to additional compensation. A strike, the ballot for which was begun on October 3, was held up when the trustees asked the court for a ruling.

Abandonment of Manhattan Transfer Authorized

The Board of Public Utility Commissioners of New Jersey has granted the Pennsylvania permission to abandon its Manhattan Transfer (N. J.) station and to divert the service of the Hudson & Manhattan to the P.R.R.'s new Market Street station in Newark, N. J., thereby abandoning also the H. & M. Park Place station in Newark. This plan for the elimination of Manhattan Transfer is part of the Pennsylvania's program of Newark improvements which is nearing completion. It is expected that the change, whereby P.R.R. passengers to and from downtown New York will change to H. & M. trains at Newark, will be effective within the next few months.

The decision pointed out that at the hearings on the application no objection to the granting of the application was entered —in fact "universal approval of the proposed change was voiced by the City of Newark, Town of Harrison, representatives of owners of property in the vicinity of Park place and other citizens and civic organizations."

Transportation Agencies Buying New York Fair Bonds

The Transportation Industry division of the New York World's Fair Bond Sales Committee has received commitments from transportation agencies for subscriptions totaling $1,800,000 of the debentures now being sold to finance this 1939 project. This total represents 75 per cent of the Transportation division's $2,500,000 goal, according to a recent statement from the division's chairman—Gerhard M. Dahl, chairman of the Brooklyn-Manhattan Transit Corporation.

Mr. Dahl's statement also reveals that F. E. Williamson, president of the New York Central and a member of the Fair's finance committee, has estimated that the Fair will attract more than 15,000,000 visitors to New York and "will set new records in summer traffic." It is also Mr. Williamson's belief that the number of rail travelers to the New York World's Fair will exceed the number of those who traveled by railroad to the Chicago "Century of Progress" by more than 50 per cent; and he pointed out that more than $30,000,000 in fares were directly attributed to the Chicago exposition.

Pullman Adopts New Method of Bedmaking

A new method of bedmaking, designed to avoid binding and thus afford more comfort, especially for restless sleepers, has been adopted by the Pullman Company, following numerous letters of appreciation by patrons during the several months it was tried out as an experiment. Under the new method of bedmaking, the edge of the covering sheet hangs loosely on the aisle side, instead of being tucked tightly, while on the side by the windows, and also at the foot, both sheets and blankets are arranged in an "accordion" or "bellows" pleat of four inches when tucked. This arrangement makes it easier for a person going to bed to throw back the covers and settle himself without disarranging the bedding, while the slack caused by the folds or pleats permits the occupant to turn without restriction. A new fold at the head of the bed is much closer to the pillows and is so arranged as to prevent contact with luggage placed in the berth by redcaps. The new arrangement, whereby covers are closer to the head, and which provide ample room at the feet, is especially appreciated by tall persons.

Observance of Loading Rules

Mechanical Division Circular D. V.-890, recently issued by the secretary, reads as follows:

Complaints are being received that some railroads are accepting open-top cars on which loads are not secured in accordance with the Rules Governing the Loading of Commodities on Open Top Cars. Some of these complaints have been investigated by the Mechanical Inspection Department and found to be justified.

Interchange Rule 2 provides that loaded cars must be accepted with certain exceptions, one of which is—

"(c) Cars improperly loaded (not conforming with the Rules Governing the Loading of Commodities on Open Top Cars) when transfer or rearrangement of lading is necessary, even though the load may have originally conformed to such rules."

This rule provides for the rejection of improperly loaded cars at interchange but, since it and the loading rules to which it refers, were promulgated in the interest of safety and contain the minimum requirements for the safe transportation of commodities involved, it is important that full and complete observance be insisted upon whether it be in connection with loads offered in interchange or those offered for exclusive movement over the rails of an individual carrier. It is urged that proper instructions be issued to all concerned that no loads will be accepted or offered for movement which do not comply with the Rules Governing the Loading of Commodities on Open Top Cars.

Charles A. Gill Honored

About 350 friends and well wishers of Charles A. Gill, recently made general manager of the Reading and Central Railroad of New Jersey lines, gave a dinner in his honor at the Berkshire Hotel, Reading, Pa., on the evening of January 18. Special trains were run to carry guests between both New York and Philadelphia and Reading. After-dinner talks were made by President E. W. Scheer of the Reading; Vice-President C. W. Galloway of the Baltimore & Ohio; Vice-President R. W. Brown of the Reading; Judge H. Robert Mays of Berks County, Pa.; C. A. Dana, president, Spicer Manufacturing Company; Roy V. Wright, managing editor, *Railway Age;* D. W. Pye, president, Tuco Products Corporation; Arthur N. Dugan, vice-president, National Bearing Metals Corporation; George DeGuire, president, Ajax Hand Brake Company, and John O. Haines, president of the Reading Company's Booster Committee. General Superintendent P. S. Lewis, of the Reading, acted as toastmaster, and during the dinner several numbers were rendered by the Reading Company Glee Club. President Scheer, on behalf of the group, presented Mr. Gill with a star sapphire ring. Mr. Gill was recently elected president of the New York Railroad Club.

Accident Statistics for October

The Interstate Commerce Commission's completed statistics of steam railway accidents for the month of October, 1936, now in preparation for the printer, will show:

Item	Month of October 1936	Month of October 1935	10 months ended with October 1936	10 months ended with October 1935
Number of train accidents	745	608	6,844	5,312
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	248	217	2,358	2,385
Injured	203	227	2,368	2,691
Passengers on trains:				
(a) In train accidents*				
Killed	1	..	7	..
Injured	60	18	607	320
(b) In train-service accidents				
Killed	3	1	9	16
Injured	121	122	1,420	1,246
Travelers not on trains:				
Killed	2	1	13	7
Injured	81	63	649	511
Employees on duty:				
Killed	48	51	521	448
Injured	1,975	1,563	17,977	13,448
All other nontrespassers:†				
Killed	175	189	1,451	1,399
Injured	647	594	5,372	4,779
Total—All classes of persons:				
Killed	477	459	4,359	4,255
Injured	3,087	2,587	28,393	22,995

* Train accidents are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

† Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

Number of accidents	443	396	3,246	2,996
Persons:				
Killed	178	159	1,318	1,286
Injured	488	481	3,754	3,566

Many Organizations Favor Fourth Section Relief

A large number of organizations have passed resolutions recently favoring the modification of the fourth section of the Interstate Commerce Act, notable among which are agricultural groups. A few of the resolutions passed by the latter are as follows:

The Montana Wool Growers Association, on January 4, 1937, expressed the desire that the Pettengill bill be again presented to Congress, endorsed its purpose and recommended its passage.

The American Farm Bureau Federation resolved that the regulation of transportation rates should not be based upon equalizing transportation charges as be-

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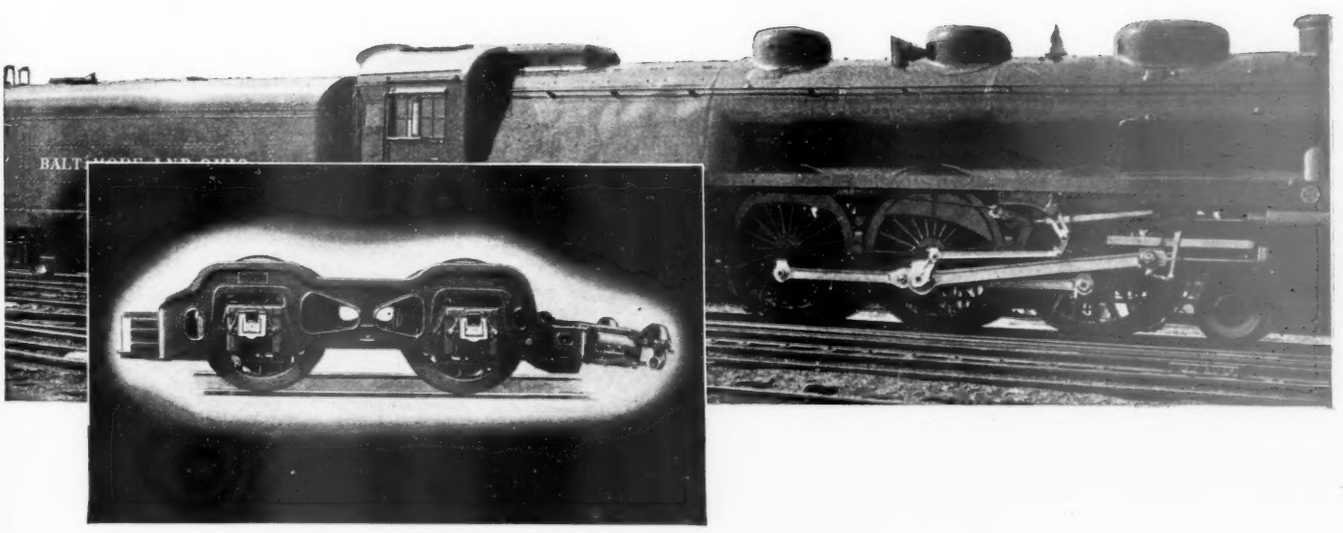
FOR MAXIMUM ECONOMY AND EFFECTIVENESS

The Locomotive Booster is Essential



The Locomotive Booster is an integral part of any locomotive design, which enables maximum road capacity without the necessity of carrying and maintaining an excess of dead weight. It capitalizes idle weight and spare steam by using it to provide additional tractive effort for starting, accelerating and over the "tight places."

This added tractive effort of The Booster permits smaller main cylinders and lower piston thrusts. It reduces the stresses throughout motion work and frames. The result is a locomotive that costs much less to maintain and operate.

Specify Franklin Replacement Parts for Franklin Devices.

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NEW YORK CHICAGO MONTREAL

tween different forms of transportation, but each form of transportation should be encouraged and if necessary directed to reduce its rates to the public to the lowest level consistent with efficient service, so long as such reductions are not made for the purpose of destroying competition and promoting monopoly, and do not penalize any area or section of the United States.

The Farmers National Grain Dealers Association, on December 1, 1936, went on record as favoring repeal of the long and short haul clause subject to the power of the Interstate Commerce Commission to suspend and investigate any tariff which is filed, to fix maximum and minimum rates, and to prohibit unreasonable discrimination.

The Minnesota State Farm Bureau Federation, on December 28, 1936, urged the repeal of the long and short haul clause because, being located at inland points, the bulk of what farmers produce moves to market by railroad, thus making rail transportation essential in the movement of agricultural products.

The California Farm Bureau Federation, on December 8, 1936, reaffirmed its resolution passed on November 15, 1934, and further resolved to urge the American Farm Bureau Federation and all senators and representatives from California to support the Pettengill bill and other legislation necessary to secure such relief.

The Ohio State Farm Bureau Federation, on October 19, 1936, favored repeal because the great majority of farmers, being located at points not adjacent to seaports and other navigable inland water, depend in large measure upon rail transportation.

N. Y. Commission Denies Central Greyhound Merger Application

The Public Service Commission of New York has denied a petition of Central Greyhound Lines, Inc., of New York for authority to merge with the Central Greyhound Lines, Inc., of Delaware. The commission found that the merger of a New York transportation corporation into a company incorporated in another state is not in the public interest. Commissioner George R. VanNamee recommended disapproval of the petition in an opinion in which Chairman Milo R. Maltbie and Commissioner Maurice C. Burritt concurred. Commissioner George R. Lunn recommended approval of the proposed merger under certain conditions, in a separate opinion.

The majority opinion of Commissioner VanNamee points out that the activities of the Delaware corporation are confined to that of a holding company and it is the owner of the entire capital stock of the New York corporation. It continues to say that the commission has not the same power of enforcement over the foreign corporation unless it chooses to submit to it, and that while the operation of the buses might be physically stopped, this would result in great inconvenience to the public.

Commissioner Lunn's opinion analyzes the testimony presented and points out that the approval of the proposed merger would result in operating economies and, so far as convenience of the passenger is concerned, would be in the public interest. The reduction in railroad fares to 2 cents per mile resulted in a reduction of 29 per cent in bus fares, and figures are given to show passengers carried by Central Greyhound in the four summer months of 1936 were 100,273 more than those carried in the same period of 1935, but there was a decrease of over $300,000 in net profit over the same months. In comparing the gross revenues of its subsidiaries it was found that gross revenues for the first five months of 1936 exceeded the corresponding months of 1935 by about $54,000, while gross revenues for June, July, August and September of 1936 showed a decrease of about $411,000 compared with the same period of 1935, or an average drop of more than $100,000 per month.

The opinion of Commissioner Lunn discusses the questions relating to the jurisdiction of the commission over the Delaware corporation if the merger is approved, and after a consideration of the principles involved the opinion states that he believes the commission can properly insert in any order adopted in this proceeding such conditions as are necessary to enable it to carry out its delegated powers. Commissioner Lunn would, however, impose conditions with respect to adjustments in the present plan for writing out of the applicant's capital account $1,131,897 of "excess in purchase price" paid by Central Greyhound over and above the value of properties acquired at various times from other operators.

Exports of Railway Equipment and Supplies to Canada

During recent years railway equipment and supplies manufacturers in the United States have lost ground to British companies in the competition to supply the Canadian markets. In the 25-year period ended March 31, 1934, exporters in this country sold to Canadian users of railway equipment and supplies 93.2 per cent of Canada's total imports of such equipment, according to an analysis of Canadian customs returns recently made public by the U. S. Department of Commerce. During the past two fiscal years ended March 31, 1935, and 1936, however, similar shipments from the United States were respectively only about 72 per cent and 71 per cent of Canada's total imports of such equipment. Meanwhile, British manufacturers, which, during the 25-year period ended March 31, 1934, had supplied Canada with only 5.4 per cent of its total imports of railway equipment and supplies, furnished 26 per cent and 28 per cent respectively for the fiscal years ended March 31, 1935, and 1936.

The Department of Commerce finds it "interesting to note" in connection with the recently-concluded reciprocal trade agreement with Canada that imports of railway supplies from the United States to the Dominion during the six months ended June 30, 1936, totaled $755,224 (Canadian dollars) or 54.7 per cent in excess of the total for the same period in 1935. Many of these items, the statement says, were subject to conditions of the trade agreement and received tariff reductions of from 8 to 43 per cent.

Equipment and Supplies

Baltimore & Ohio $10,000,000 Equipment Program

The Baltimore & Ohio, on January 20, authorized the purchase of 2,000 gondola cars of 70 tons' capacity (1,450 of 52½ ft. and 550 of 65½ ft. length), and also the construction of 2,000 covered wagon top box cars, of 50 tons' capacity and 42½ ft. in length, in the company's shops. It is understood that the Bethlehem Steel Company was the low bidder for the 2,000 gondola cars. The construction of the 2,000 box cars in the company's shops will give employment to a large number of its employees throughout the remainder of the year. The total estimated cost of this equipment is approximately $10,000,000, the financing of which it is expected will be arranged through an equipment trust. In the *Railway Age* of January 16, a contract was reported let to the Bethlehem Steel Company for 1,500 gondola cars.

LOCOMOTIVES

THE NEW ORLEANS PUBLIC BELT has ordered three 900-hp. Diesel-electric locomotives, from the Baldwin Locomotive Works.

THE UNION PACIFIC contemplates the purchase of 25 locomotives of the 4-6-6-4 type, similar to the 15 ordered early last year, for fast freight service.

FREIGHT CARS

THE ILLINOIS TERMINAL is inquiring for 100 mill type gondola cars of 50 tons' capacity, and 50 steel underframe flat cars of 50 tons' capacity.

THE NORTHERN PACIFIC is inquiring for 500 box cars of 50 tons' capacity. This is in addition to its inquiry for 1,500 other cars, which was reported in the *Railway Age* of January 16.

THE UNITED STATES NAVY DEPARTMENT, BUREAU OF SUPPLIES AND ACCOUNTS, Washington, D. C., will receive bids on February 2, for two box cars of 50 tons' capacity; 40 ft. 6 in. long.

THE MISSOURI PACIFIC is inquiring for 2,525 cars, as follows:

No.	*Type*	*Capacity*	*Length*
700	Gondola	50 tons	45 ft.
1,000	Box	50 tons	..
500	Hopper	55 tons	33 ft.
300	Flat	50 tons	45 ft.
25	Caboose	30 tons	30 ft.

PASSENGER CARS

THE NEW YORK, NEW HAVEN & HARTFORD.—The trustees of this road on January 15, filed a petition in the United States District Court requesting authority to acquire 50 additional light-weight air-conditioned passenger coaches of the very latest type, and 5 modern cafeteria cars. The road recently placed in service substantially all of the 50 passenger cars authorized last March, but increased passenger

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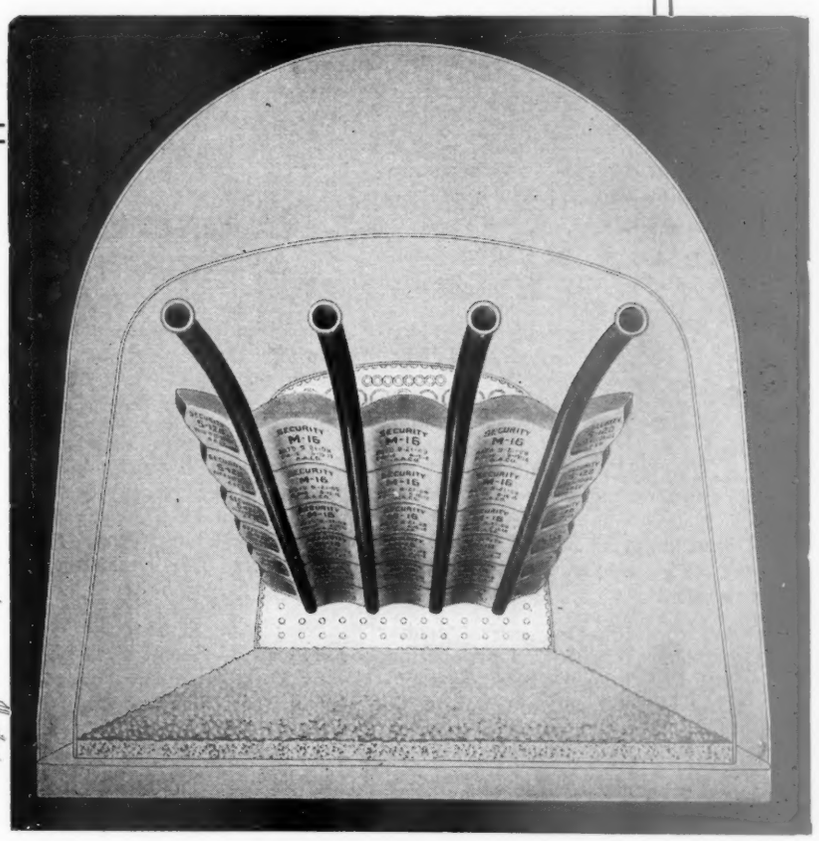
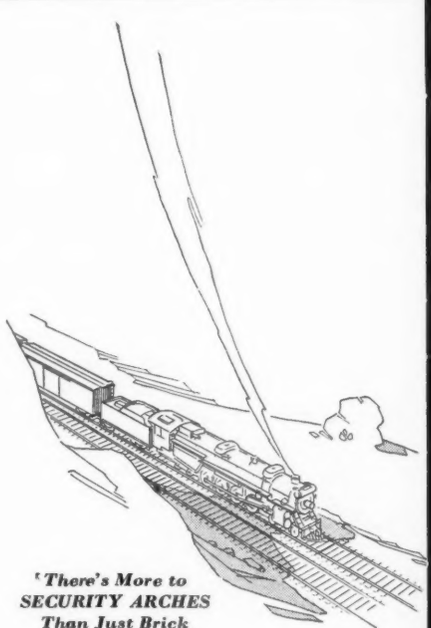
is maximum ton-miles from every pound of fuel!

Security Brick Arches are correctly designed to compel every pound of fuel to develop its share of full boiler capacity.

Security Arch Brick are made from selected clays and carefully burned to assure maximum arch life in the locomotive firebox.

By every standard of value Security Arch Brick assures maximum economy.





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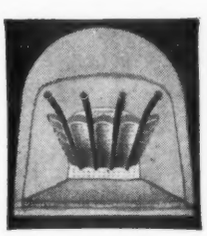

AMERICAN ARCH CO.
INCORPORATED

Locomotive Combustion Specialists » » »

traffic now requires additional coaches. The cost of the new coaches is estimated at $40,000 each, and of the cafeteria cars $45,000 each, to be financed in part by payments of cash and in part by means of an equipment trust.

IRON AND STEEL

THE LEHIGH & NEW ENGLAND has ordered 1,200 tons of 130-lb.-head free rail—700 tons from the Bethlehem Steel Company, and 500 tons from the Carnegie-Illinois Steel Corporation. These companies have also received orders for the railroad's requirements of tie plates.

AIR CONDITIONING

THE GRAND TRUNK-CANADIAN NATIONAL plans to air-condition completely trains operating over the Grand Trunk through local cities and eastern Canadian points.

Supply Trade

Clifford L. Sheen, sales representative of the **American Locomotive Company** at St. Louis, Mo., has been promoted to technical assistant to the vice-president, with headquarters in New York, and has been succeeded by **William F. Lewis.**

R. L. Salter, superintendent of the Sayre, Pa., plant of the Southern Wheel Company, has been appointed chief inspector of the **Association of Manufacturers of Chilled Car Wheels,** with headquarters at Chicago.

Louis B. Neumiller, general service manager of the **Caterpillar Tractor Company,** Peoria, Ill., has been promoted to sales manager of the central sales division, and has been succeeded by **Edward W. Jackson.**

The Allen Equipment & Supply Company, Inc., has been organized to act as agents and dealers in railroad and contractors' supplies and equipment, with office at 30 Church street, New York. **D. W. Dinan** is president, **W. H. Allen,** vice-president, and **James Isaacs,** secretary-treasurer.

Charles H. Roberts, general auditor of the **Johns-Manville Corporation,** New York, has been promoted to comptroller; **Arthur Olsen,** who joined the company on January 1, has been appointed treasurer; **Vandiver Brown,** assistant secretary, has been promoted to secretary, and **W. I. Waite** has been appointed secretary of the officers' board. All the new appointments are effective immediately, and follow the resignation of Vice-President E. M. Voorhees from the positions of secretary and treasurer. Mr. Voorhees will remain as a vice-president until he goes with the United States Steel Corporation on April 1.

John H. Rodger, who has been elected president of **The Oxweld Railroad Service Company,** Chicago, one of the units of the Union Carbide & Carbon Corporation, as reported in the *Railway Age* of January 16, entered the railway supply

John H. Rodger

business in New York in 1899 with the Standard Coupler Company. In 1911 he joined The Safety Car Heating & Lighting Company at Chicago, remaining with this organization 17 years, serving successively in the capacity of representative, western manager, and vice-president in charge of the Chicago district, and subsequently, vice-president at New York. In 1928 he resigned to become vice-president of The Oxweld Railroad Service Company, Chicago, and in 1930 was made executive vice-president, which position he held until his recent promotion.

Construction

DELAWARE & HUDSON.—A contract has been given to the Bates & Rogers Construction Company to repair the arch at Green Island, N. Y., at a cost of about $75,000.

DELAWARE, LACKAWANNA & WESTERN.—A contract has been given to Foley Brothers, New York, for work in connection with the elimination of the grade crossing at Transit Road, Depew, N. Y. See *Railway Age,* December 5, 1936, page 847.

NEW YORK CENTRAL—A contract has been given to George F. Driscoll Company, New York, for work on the superstructure of the West Side highway from St. Clair place to 135th street, New York, to cost about $600,000. The work involves the use of 3,170 tons of structural steel.

VIRGINIAN.—The Interstate Commerce Commission, Division 4, has authorized this company to construct and operate an extension of its line from the end of its Morri branch at Morri, W. Va., in a general westerly direction, along Laurel Fork and Clear Fork, to a connection with its Guyandot River branch, at Simon, W. Va., 23.4 miles; and from a connection with the new line, at a point midway between its termini, northeasterly, along Clear Fork and Toney Fork, 6.7 miles.

Financial

ABILENE & SOUTHERN.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon a part of its line extending from Hamlin, Texas to Anson, 17.41 miles, and to abandon operation under trackage rights over the Abilene & Northern between Anson, Texas and Abilene, 24.62 miles.

ATCHISON, TOPEKA & SANTA FE.—*Acquisition.*—Examiner Robert R. Hendon, of the Interstate Commerce Commission, in a proposed report, has recommended that the Southern Kansas Stage Lines be authorized to purchase the property and operating rights of the Hewitt Truck Line subject to the condition that such steps will promptly be taken as are legally possible and necessary to effect acquisition by the Santa Fe from the General Improvement Company of all interest which the latter owns in the Southern Kansas Stage Lines. Examiner Hendon also recommends that the commission deny the application of this company to purchase the property and operating rights of the Harris Freight Line and the Burton Truck Line, on the ground that such purchase would not improve rail-highway coordination and is not in the public interest.

Acquisition.—Grover L. Swink, assistant chief, Section of Finance, of the Interstate Commerce Commission, in a proposed report has recommended that the commission authorize the Santa Fe Trail Stages to acquire control of the Rio Grande Stages by purchase of the capital stock subject to the conditions that such steps will promptly be taken as are legally possible and necessary to merge the properties and operating rights of the Rio Grande Stages, Inc., and Santa Fe Trail Stages, Inc., into the Southern Kansas Stage Lines Company; to dissolve Rio Grande Stages, Inc., and Santa Fe Trail Stages, Inc.; and to effect acquisition by the Santa Fe from the General Improvement Company of all interest which the latter owns in the Southern Kansas Stage Lines Company.

ATLANTA & ST. ANDREWS BAY.—*Securities.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue $300,000 of common stock to be delivered at par to the St. Andrews Bay Holding Company in payment of advances made for capital purposes, and $1,100,000 of first mortgage sinking fund bonds, 5 per cent series due 1966, to be sold at not less than 90 per cent of par and accrued interest, the proceeds to be applied to the retirement of outstanding indebtedness.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—Examiner J. S. Prichard of the Interstate Commerce Commission in a proposed report has recommended that this company be permitted to abandon a branch line extending from Kingfisher, Okla., to Cashion, 15.95 miles.

DENVER & RIO GRANDE WESTERN.—*Certificates of Indebtedness.*—This company has applied to the Interstate Commerce

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Commission for authority to issue $5,000,000 of 4 per cent trustees' certificates of indebtedness, to be dated February 1, $1,800,000 payable December 31 and $3,200,000 payable February 1, 1939, with the right of option and redemption after February 1, 1938.

GULF, MOBILE & NORTHERN.—*Securities.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue $800,000 of 3 per cent secured serial notes, to be sold at par and accrued interest, and the proceeds, together with treasury funds, to be used to retire outstanding obligations. The commission has also authorized this company to pledge with the trustee of the indenture under which such notes are to be issued, and as collateral security therefor, not exceeding $1,200,000 of first mortgage 5 per cent gold bonds.

KANSAS CITY SOUTHERN.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to assume obligation and liability, as guarantor, in respect of $2,020,000 of first mortgage bonds of the Port Arthur Canal & Dock Company.

MAXTON, ALMA & SOUTHBOUND.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon as to interstate and foreign commerce its entire line in Robeson county, N. C.

NEW YORK, NEW HAVEN & HARTFORD.—*Trustee Ratification.*—The Interstate Commerce Commission, Division 4, has issued an order ratifying the appointments of Howard S. Palmer, James Lee Loomis, and W. M. Daniels, trustees of the New York, New Haven & Hartford, as trustees of the property of the Hartford & Connecticut Western.

NORFOLK SOUTHERN.—*Bus Operation.*—The Interstate Commerce Commission, Division 5, has issued an order staying the effect of a report proposed by Joint Board No. 7 recommending that the commission issue a certificate to the Norfolk Southern Bus Corporation under the "grandfather" clause of the motor carrier act.

NORFOLK SOUTHERN.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has denied the application of this company to abandon a part of a branch line extending from Pungo, Va., to Munden, 10.2 miles, but said that the line should be operated only during the potato shipping season. This would permit the abandonment of the line during the remainder of the year.

NORFOLK SOUTHERN.—*Equipment Trust Certificates.*—The Interstate Commerce Commission, Division 4, has authorized this company to assume obligation and liability in respect of $960,000 of equipment trust certificates, $854,000 thereof to be in modified definitive form; $794,000 of definitive certificates to be exchanged for a like amount of Norfolk Southern equipment trust certificates in temporary forms, now outstanding, and $60,000 thereof to be sold at par and accrued dividends, in connection with the procurement of 25 automobile cars. The certificates in temporary form were sold to the P.W.A. and $106,000 have been paid.

SALT LAKE & UTAH.—*R. F. C. Loan.*—The Salt Lake & Utah Railroad Corporation has applied to the Reconstruction Finance Corporation for a 10-year 4 per cent loan of $400,000 to be used to purchase the property and operating rights of the Salt Lake & Utah Railroad Company.

SOUTHERN PACIFIC.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon a portion of its Santa Ana branch in Orange County, Cal., 2.1 miles.

TENNESSEE CENTRAL.—*Loan.*—The Interstate Commerce Commission, Division 4, has authorized a loan of $5,000,000 from the Reconstruction Finance Corporation. The loan will be used to refinance the funded debt with a saving in fixed charges, to pay off short-term loans, and to purchase the property of the Nashville Terminal Company.

The commission has also authorized the acquisition by this company of the property of the Nashville Terminal Company and the merger of the properties of these companies into one corporation for ownership, management, and operation. The commission has also authorized this company to issue $5,500,000 of 4 per cent first mortgage bonds to be pledged as collateral security for short term notes.

TOLEDO, PEORIA & WESTERN.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue $1,600,000 of first mortgage 4 per cent bonds, to be sold at 99.5 per cent of par and accrued interest, and the proceeds to be used to redeem $1,485,000 of first mortgage bonds outstanding and to reimburse its treasury.

UNION TERMINAL COMPANY.—*Bonds.*—This company has applied to the Interstate Commerce Commission for authority to issue $5,000,000 of first mortgage 3¼ per cent bonds which will be used to refund the same amount of 5 per cent bonds now outstanding. The bonds will be sold at 106.15 and will be handled by a group of banking houses composed of Lazard-Freres & Co., Blythe & Co., Ladenburg, Thalmann & Co., and Bancamerica-Blair Corporation. Authority to assume liability and obligation as guarantor for payment of interest and principal on the bonds was asked by the following companies: Gulf, Colorado & Santa Fe; Fort Worth & Denver City; St. Louis, San Francisco & Texas; Texas & Pacific; Missouri-Kansas-Texas; St. Louis Southwestern; Chicago, Rock Island & Gulf, and Texas & New Orleans.

Average Prices of Stocks and Bonds

	Jan. 19	Last week	Last year
Average price of 20 representative railway stocks..	55.47	55.12	43.78
Average price of 20 representative railway bonds..	85.13	85.31*	78.78

* Corrected.

Dividends Declared

Pittsburgh & Lake Erie.—$2.25, payable February 1 to holders of record January 18.

Wheeling & Lake Erie.—Prior Lien, $1.00, quarterly; 5½ Per Cent Preferred, $1.37½, quarterly, both payable February 1 to holders of record January 26.

Railway Officers

EXECUTIVE

O. M. Stevens, superintendent of the Wichita, Joplin and White River divisions of the Missouri Pacific, with headquarters at Wichita, Kan., has been promoted to executive representative at Denver, Colo., to succeed **Horace Stringfellow,** deceased. Mr. Stevens' appointment became effective on January 16.

Thomas Balmer, western counsel of the Great Northern, with headquarters at Seattle, Wash., effective February 1, will become vice-president of the company, with the same headquarters, to succeed **L. C. Gilman,** who will retire on January 28 on the occasion of his eightieth birthday.

Mr. Balmer was born at Danville, Ill., on July 29, 1887, and first entered the service of the Great Northern on January 1, 1907, as a stenographer in the company's law offices at Seattle. While engaged in this capacity, Mr. Balmer attended law school at the University of Washington

Thomas Balmer

and was admitted to the Washington bar in 1909, after which he was made a law clerk in the Seattle office. On February 1, 1912, he was advanced to assistant attorney with headquarters at Spokane, Wash., and on August 5, 1918, he was appointed attorney for Idaho and eastern Washington, with the same headquarters. From October 1, 1919, to October 1, 1926, Mr. Balmer served as attorney for Oregon and western Washington, with headquarters at Seattle, then being sent to St. Paul, Minn., as assistant general counsel of the railroad. He was made western counsel at Seattle on January 1, 1929.

Mr. Gilman, who is a graduate of the law school of Columbia university, first located in Seattle in March, 1884, where he was admitted to the Washington bar in the same year. For a time he engaged in the practice of law and subsequently formed a partnership with James Hamilton Lewis, now United States senator from Illinois. Still later he served as city attorney of Seattle and in 1893 he was elected to the Washington State House of

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Representatives. In 1903, Mr. Gilman became western counsel for the Great Northern and after six years in this capacity he was transferred to St. Paul to become assistant to the president. In 1913,

L. C. Gilman

he was elected to the presidency of the Spokane, Portland & Seattle (now operated jointly by the Great Northern and the Northern Pacific), in which capacity he served until November 15, 1920, except for the period from June 20, 1918, to March 1, 1920, when he was district director for the Puget Sound district of the United States Railroad Administration. Since November 15, 1920, he has been vice-president of the Great Northern at Seattle.

FINANCIAL, LEGAL AND ACCOUNTING

E. G. Donohue, assistant to assistant treasurer of the Louisville & Nashville, with headquarters at New York, has been appointed assistant treasurer and assistant secretary, succeeding **W. J. McDonald,** who has been elected vice-president in charge of finance and accounting, as reported in the *Railway Age* of December 26.

Laurent C. Deming, who has retired as comptroller of the Atchison, Topeka & Santa Fe, with headquarters at New York, as noted in the *Railway Age* of January 9, was born at Hartford, Conn. He was graduated from Yale College in 1883, with a B.A. degree and entered railroad service in January, 1884, with the Jacksonville, Tampa & Key West (now part of the Atlantic Coast Line). From May, 1890, to March 31, 1924, Mr. Deming served as assistant secretary of the Atchison, Topeka & Santa Fe and become comptroller on April 1, 1924, the position he held until his retirement.

OPERATING

P. H. Nee, superintendent of the Trans-Missouri division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Miles City, Mont., has been promoted to general superintendent with headquarters at Milwaukee, Wis., to succeed **Daniel W. Kelly,** whose death is noted elsewhere in these columns. **A. C. Kohlhase,** trainmaster of the Rocky Mountain division with headquarters at Butte, Mont., has been promoted to superintendent of the Trans-Missouri division, to replace Mr. Nee.

M. F. Weeks, assistant superintendent on the Missouri Pacific at North Little Rock, Ark., has been promoted to terminal superintendent of the Kansas City Terminal division, Kansas City, Mo., to succeed **F. T. Mahoney,** who has been appointed superintendent of the Eastern and Kansas City Terminal divisions, with the same headquarters, to replace **C. A. Fink,** who has been transferred to the Wichita, Joplin and White River divisions, at Wichita, Kan., succeeding **O. M. Stevens,** whose appointment as executive representative is reported elsewhere in these columns. **Ralph D. Day,** trainmaster of Kansas City, has been promoted to assistant superintendent at North Little Rock, Ark., to replace Mr. Weeks and has been succeeded as trainmaster at Kansas City, by **Earl H. Campbell,** night general yardmaster at Kansas City. These appointments became effective on January 16.

John A. Gillies, who has been appointed assistant general manager of the Northern district of the Western Lines of the

John A. Gillies

Atchison, Topeka & Santa Fe, with headquarters at La Junta, Colo., has been identified with the Santa Fe for more than 30 years. He was born on August 15, 1889, at Winnipeg, Man., and entered railway service on June 15, 1906, as a chainman on the Santa Fe. For the following nine years he advanced successively through various positions in the engineering department, including those of rodman and transitman, and on May 1, 1915, he was further promoted to district engineer of the Southern district, with headquarters at Amarillo, Tex. Subsequently he was transferred to the Northern district, with headquarters at La Junta, and on October 1, 1918, he was appointed trainmaster on the Western division at Dodge City, Kan. On May 15, 1923, Mr. Gillies was further promoted to assistant superintendent of the Western division, with the same headquarters, being advanced to superintendent of the Slaton division on November 15, 1928. Four years later he was transferred to the Colorado division, with headquarters at Pueblo, Colo., where he was located at the time of his recent appointment as assistant general manager at La Junta.

TRAFFIC

J. P. McDonald, division freight and passenger agent of the Lehigh Valley, with headquarters at Wilkes-Barre, Pa., has been appointed coal freight agent, with headquarters at New York. **E. G. Siemon,** commercial agent at Buffalo, N. Y., has been appointed division freight agent at Wilkes-Barre. **G. B. Peterson,** general agent at Toledo, Ohio, has been transferred in the same capacity to Indianapolis, Ind., succeeding **M. Wolf,** deceased. **C. C. Brown,** commercial agent at Philadelphia, Pa., has been appointed general agent at Toledo. **E. C. Kiefer,** city passenger agent at Philadelphia, has been appointed division passenger agent at Wilkes-Barre.

George Williams, freight traffic manager of the Denver & Rio Grande Western, whose appointment to the newly-created position of general traffic manager was reported in the *Railway Age* of January 9, was born on July 18, 1873, in Boulder County, Colo. He first entered railway service on June 1, 1892, as a stenographer in the passenger department of the Union Pacific, remaining with this company until June, 1893, following which he was out of railway service for about four years. In March, 1897, Mr. Williams returned to railway service as a stenographer to the general passenger agent of the Union Pacific, Denver & Gulf (now part of the Colorado & Southern). For a six-month period during 1898, he served in the same capacity on the St. Louis-San Francisco, then going with the Colorado & Southern as a stenographer to the vice-president. In October, 1900, he was advanced to chief clerk to the traffic manager of the same road, holding this position until November, 1910, when he was promoted to assistant general freight agent. From September, 1911, to June, 1920, Mr. Williams was assistant general freight and passenger agent of the C. & S. Following this period he was out of railroad service for about six months.

George Williams

In February, 1921, he entered the service of the Denver & Rio Grande Western as general freight agent, being advanced to freight traffic manager in November, 1927.

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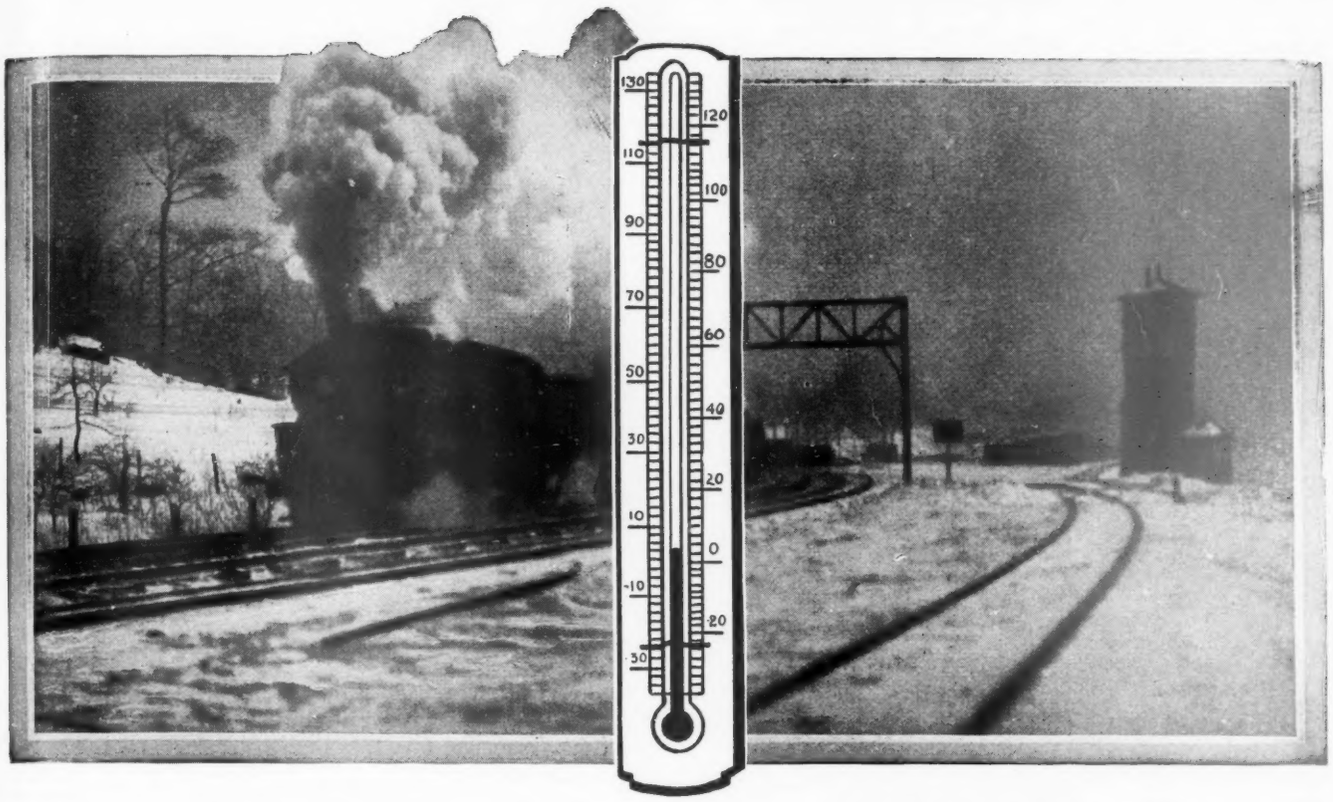

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Mr. Williams' headquarters are at Denver, Colo.

J. C. McGohan, who has been appointed general freight agent of the Baltimore & Ohio, with headquarters at Baltimore, Md., as noted in the *Railway Age* of January 9, was born on March 2, 1902. He entered the service of the Baltimore & Ohio on August 20, 1919, as clerk in the

J. C. McGohan

freight department at Middletown, Ohio, becoming assistant cashier there on August 1, 1920. On December 16, 1921, he was advanced to rate clerk in the general freight department at Cincinnati, Ohio, and on July 1, 1927, was appointed commerce agent at Cincinnati. On March 1, 1932, he became assistant general freight agent, in which capacity he remained until his recent appointment as general freight agent.

Wilfrid McNaught Knapp, who has been appointed chief traffic officer of the Central of Georgia at Savannah, Ga., as noted in the *Railway Age* of January 9, was born at Atlanta, Ga., on October 3, 1883. He entered railway service in February, 1901, with the Clyde Charleston

W. McN. Knapp

Fast Freight Line. From August, 1903, to September, 1904, he served with the New York & Texas Steamship Company (Mallory Line). Mr. Knapp entered the service of the Central of Georgia in September, 1904, serving in various capacities until April, 1918, when he was appointed executive chief clerk to regional director, Southern region, United States Railroad Administration. Returning to the Central of Georgia in January, 1920, he served successively as assistant general freight agent and general freight agent. Mr. Knapp was appointed assistant freight traffic manager in 1929; freight traffic manager in 1930; and traffic manager in 1932, the position he held until his recent appointment as chief traffic officer.

MECHANICAL

H. W. Faus, engineer of tests of the New York Central System, with headquarters at New York, has been appointed engineer of motive power, succeeding **W. L. Lentz,** who has resigned. **E. L. Johnson,** assistant engineer of tests, has been appointed engineer of tests, succeeding Mr. Faus. **W. F. Collins,** automotive engineer, has been appointed assistant engineer of tests, succeeding Mr. Johnson. **W. C. Wardwell** has been appointed assistant to assistant chief engineer motive power and rolling stock, succeeding to the duties of **G. T. Wilson,** former general equipment inspector (locomotives), who has been appointed automotive engineer, succeeding Mr. Collins.

ENGINEERING AND SIGNALING

C. S. Weatherill, division engineer of the Eastern division of the Minneapolis & St. Louis, with headquarters at Oskaloosa, Iowa, has been promoted to the newly-created position of engineer maintenance of way, reporting directly to the general manager, with headquarters at Minneapolis, Minn. Mr. Weatherill's appointment became effective on January 16.

J. L. Willcox, assistant engineer of statistics of the Atlantic Coast Line, with headquarters at Wilmington, N. C., has been appointed engineer of statistics, succeeding **L. L. Sparrow,** whose death on November 25 was noted in the *Railway Age* of December 26. Mr. Willcox was born at Darlington, S. C., and was graduated from Wofford College in 1912. He entered the service of the Atlantic Coast Line in September, 1912, and held various positions in the construction, valuation and maintenance of way departments, and in the chief engineer's office. He was appointed assistant engineer of statistics in 1929, the position he held until his recent appointment.

Frank T. Darrow, who has been promoted to chief engineer of the Chicago, Burlington & Quincy, effective February 1, as noted in the January 16 issue, has been in the service of this company for about 40 years. He was born on September 2, 1875, at Corning, Iowa, and received his higher education at Allegheny college, Meadeville, Pa., graduating with a degree in civil engineering in 1897. Before his graduation from college, Mr. Darrow was connected for several years with the Standard Box Factory, Portland, Ore., and also served with the Erie for three years at Corry, Pa. In 1897 he entered the service of the Burlington & Missouri River (now C. B. & Q.), where he was engaged on location, construction, maintenance and bridge work until 1905, when he was appointed engineer maintenance of way of the Nebraska district. In 1907 Mr. Darrow was advanced to principal assistant engineer of the Lines West of the Missouri river, with headquarters at Lincoln, Neb. In 1909, after serving for a short time as assistant engineer maintenance of way at Lincoln, Mr. Darrow was advanced to engineer maintenance of way

Frank T. Darrow

with the same headquarters. In 1918, he was appointed assistant chief engineer of the Lines West of the Missouri river, which position he held until his recent appointment as chief engineer at Chicago.

Albert W. Newton, who has retired, effective February 1, as chief engineer of the Chicago, Burlington & Quincy, has been identified with this company for nearly 34 years. A native of Jerseyville, Ill., he engaged in general engineering practice from 1892 to 1898, then becoming engineer of the Sny Island Levee and Drainage district at Pittsfield, Ill. He entered railway service with the Chicago & Alton (now the Alton) in September, 1900,

Albert W. Newton

as assistant engineer at Kansas City, Mo., later being transferred to Bloomington, Ill. In March, 1903, Mr. Newton left the service of the Alton to go with the Burlington as construction engineer at St. Louis, Mo., being appointed assistant engineer with headquarters at Chicago, in October, 1904. In December of the same

Continued on next left-hand page

year he was appointed engineer of the Missouri district at St. Louis, Mo., holding this position until January, 1907, when he was appointed general inspector of permanent way and structures in the office of the vice-president at Chicago. From January, 1915, to January, 1917, Mr. Newton held the position of assistant to the president of the Burlington, then being promoted to chief engineer, with headquarters at Chicago.

OBITUARY

R. C. Pearson, division engineer on the Chicago, Burlington & Quincy with headquarters at Alliance, Neb., died at that point on January 13 of pneumonia.

Dennis E. O'Toole, who has been general baggage agent of the Terminal Railroad Association of St. Louis for 33 years, died of pneumonia at his home at St. Louis, Mo., on January 13 at the age of 72 years.

James H. Cherry, vice chairman of the Western Trunk Line committee at Chicago, died on January 15. Mr. Cherry had been with the Western Trunk Line Committee for 16 years, first as a member of the Standing Rate committee and then, for about three years, as vice chairman. Prior to his connection with the Western Trunk Line committee he had served for many years with the Illinois Central where he attained the position of assistant general freight agent.

Daniel W. Kelly, general superintendent on the Chicago, Milwaukee, St. Paul & Pacific at Milwaukee, Wis., died at the Mayo clinic at Rochester, Minn., on January 1. Mr. Kelly was born in 1878, at Rockland, Mich., and first entered railway service with the Chicago & North Western in 1893 as an engine wiper, later serving as a brakeman on the same road. In 1895, Mr. Kelly went with the Duluth & Iron Range as a brakeman and in the following year he accepted a similar position with the Milwaukee. For a year following 1897, Mr. Kelly was in the service of the Great Northern as a brakeman, then returning to the Milwaukee in the same capacity. Subsequently he was advanced through the positions of yardmaster, conductor, assistant trainmaster, trainmaster and division superintendent at Mason City, Iowa. In 1923, he was appointed superintendent of terminals at Milwaukee, and in 1927 he was made general superintendent with the same headquarters, which position he held until his death.

M. B. Morgan, district engineer of the Southern lines of the Illinois Central and of the Yazoo & Mississippi Valley (part of the I. C.), whose death on December 26 was reported in the *Railway Age* of January 2, was born at Nontecoka, Pa., in 1872. After obtaining a degree in civil engineer at Pennsylvania State College, Mr. Morgan entered railway service with the Illinois Central in August, 1898, as a track apprentice at Chicago. During the following two years he served in this position and as a rodman and instrumentman at various points on the Northern lines, then, in April, 1900, being sent to Grenada, Miss., as resident engineer on the construction of a line between Grenada and Parsons, Miss. Later Mr. Morgan served in similar capacities at various locations on the Y. & M. V. and the southern lines of the Illinois Central until May, 1911, when he was appointed track supervisor on the Mississippi division. In May, 1912, he was advanced to division engineer of the Tennessee division, with headquarters at Fulton, Ky., and in November, 1913, he was sent to Chicago as assistant engineer maintenance of way. On July 17, 1916, he was appointed district engineer of the Y. & M. V., and in 1931 his jurisdiction was extended to include also the Southern lines of the Illinois Central.

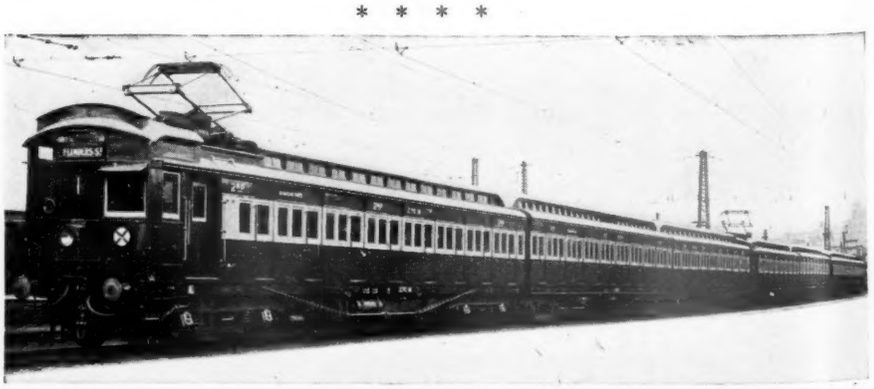
Edward H. Lee, retired president of the Chicago & Western Indiana, whose death on January 11 was reported in the *Railway Age* of January 16, was born on January 29, 1863, at Dayton, Ohio. Mr. Lee attended Ohio State University and Wooster university and entered railway service in 1880 as a rodman on the Scioto Valley (now part of the Norfolk & Western). Subsequent to 1887, he served on various roads as an instrumentman, assistant engineer and resident engineer, then

Edward H. Lee

entering the service of the Elgin, Joliet & Eastern as office engineer, and holding the position of chief engineer of that company from 1889 to 1893. From the latter year until 1897, Mr. Lee was engaged in private practice as engineer and superintendent for contractors and in charge of field work for the Sanitary District of Chicago. During 1898 he served as principal assistant engineer on joint track elevation at Sixteenth street, Chicago. In the same year he went with the Chicago & Western Indiana and the Belt Railway of Chicago, where he served as engineer and general roadmaster until 1905, when he was promoted to chief engineer of these roads. In 1915 he was further advanced to vice-president in addition to his duties as chief engineer. During the period of federal control, Mr. Lee acted as president, but resumed the position of vice-president and chief engineer on the return of the railroads to their owners. In 1927 he was elected president of the C. & W. I. and the Belt Railway, which position he held until his retirement on April 1, 1932. Mr. Lee was a past president of the American Railway Engineering Association (1923-24) and of the Western Society of Engineers (1914-1915).

James H. O'Neill, general manager of the Great Northern at Seattle, Wash., whose death on January 13 of a heart attack was reported in the January 16 issue, was a native of Quebec, Que. His first railway service was with the St. Paul, Minneapolis & Manitoba (now part of the Great Northern) as a water boy during the summer of 1886. In December, 1887, he became a brakeman and on October 15, 1888, he was further advanced to conductor. Twelve years later Mr. O'Neill was transferred to the general offices at St. Paul as a student in the office of the auditor of disbursements, holding this position until April 1 of the same year, when he was appointed trainmaster for the Montana Central (part of the Great Northern). On December 1, 1902, he was advanced to superintendent of the Montana division of the Great Northern, being transferred to the Kalispell division on April 1, 1904, and thence to the Cascade division on October 24, 1907. Mr. O'Neill was further advanced to assistant general superintendent of the Western district on July 20, 1913, being appointed general superintendent of the same district on April 1 of the following year. On July 15, 1918, he was appointed terminal manager for the Puget Sound district of the United States Railroad Administration, returning to the Western district of the Great Northern as general superintendent on July 25, 1919. On February 1, 1920, he was appointed assistant general manager of the Western lines and a month later he became general manager, which position he held until his death.

* * * *



Electric Suburban Train on the Victorian (Australia) Railways—the First to Be Painted in Bright Colors Which Are to Be Used on All Such Equipment

Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 140 Monthly Reports of Revenues and Expenses Representing 144 Class I Steam Railways

FOR THE MONTH OF NOVEMBER, 1936 AND 1935

Item	United States		Eastern District		Southern District		Western District	
	1936	1935	1936	1935	1936	1935	1936	1935
Average number of miles operated	236,427	237,485	58,526	58,838	44,821	45,050	133,080	133,597
Revenues:								
Freight	$298,220,011	$248,721,963	$124,555,797	$102,670,416	$60,826,383	$50,306,543	$112,837,831	$95,745,004
Passenger	32,082,705	27,849,914	18,555,021	16,325,707	4,079,486	3,438,269	9,448,198	8,085,938
Mail	8,068,718	7,695,576	3,058,990	2,948,509	1,442,667	1,395,565	3,567,061	3,351,502
Express	5,356,047	4,500,876	2,468,974	2,106,600	931,298	787,894	1,955,775	1,606,382
All other transportation	7,464,315	6,443,362	3,854,067	3,409,287	862,768	654,586	2,747,480	2,379,489
Incidental	6,590,300	5,489,748	3,604,767	3,069,440	865,800	796,247	2,119,733	1,624,061
Joint facility—Cr.	1,007,691	848,035	296,764	252,721	188,512	166,125	522,415	429,189
Joint facility—Dr.	242,226	208,231	52,706	48,226	22,555	20,379	166,965	139,626
Railway operating revenues	358,547,561	301,341,243	156,341,674	130,734,454	69,174,359	57,524,850	133,031,528	113,081,939
Expenses:								
Maintenance of way and structures	35,885,753	31,410,251	14,317,801	12,111,963	6,717,350	6,157,700	14,850,602	13,140,588
Maintenance of equipment	66,508,952	58,142,423	30,958,965	25,714,950	12,468,692	11,436,949	23,081,295	20,990,524
Traffic	8,410,317	7,742,177	3,117,176	2,901,125	1,657,802	1,513,303	3,635,339	3,327,749
Transportation	121,815,950	106,909,075	55,001,350	48,267,029	19,855,753	17,769,785	46,958,847	40,872,261
Miscellaneous operations	3,022,886	2,515,132	1,452,065	1,215,701	320,239	268,044	1,250,582	1,031,387
General	13,098,601	12,266,014	5,741,888	5,499,765	2,248,493	2,018,754	5,108,220	4,747,495
Transportation for investment—Cr.	457,338	333,591	124,611	64,406	88,083	23,071	244,644	246,114
Railway operating expenses	248,285,121	218,651,481	110,464,634	95,646,127	43,180,246	39,141,464	94,640,241	83,863,890
Net revenue from railway operations	110,262,440	82,689,762	45,877,040	35,088,327	25,994,113	18,383,386	38,391,287	29,218,049
Railway tax accruals	26,495,242	18,052,684	11,395,499	7,397,047	5,872,233	4,127,170	9,227,510	6,528,467
Railway operating income	83,767,198	64,637,078	34,481,541	27,691,280	20,121,880	14,256,216	29,163,777	22,689,582
Equipment rents—Dr. balance	7,962,734	7,395,910	3,555,564	3,556,487	78,033	251,314	4,329,137	3,588,109
Joint facility rent—Dr. balance	3,393,893	3,016,878	1,872,684	1,722,350	390,013	338,345	1,131,196	956,183
Net railway operating income	a72,410,571	b54,224,290	29,053,293	22,412,443	19,653,834	13,666,557	23,703,444	18,145,290
Ratio of expenses to revenues (per cent)	69.25	72.56	70.66	73.16	62.42	68.04	71.14	74.16
Depreciation included in operating expenses	16,028,715	16,169,600	6,953,521	7,062,799	3,191,204	3,183,526	5,883,990	5,923,275
Total maintenance before depreciation	86,365,990	73,383,074	38,323,245	30,764,114	15,994,838	14,411,123	32,047,907	28,207,837
Net railway operating income before depreciation	88,439,286	70,393,890	36,006,814	29,475,242	22,845,038	16,850,083	29,587,434	24,068,565

FOR ELEVEN MONTHS ENDED WITH NOVEMBER, 1936 AND 1935

Average number of miles operated	236,831	237,973	58,600	58,956	44,909	45,206	133,322	133,811
Revenues:								
Freight	$3,009,310,051	$2,561,838,447	$1,274,501,304	$1,089,219,729	$591,628,373	$503,724,929	$1,143,180,374	$968,893,789
Passenger	373,228,625	323,514,823	210,841,051	188,188,596	49,531,151	41,617,706	112,856,423	93,708,521
Mail	85,117,027	82,415,928	32,688,731	31,734,482	15,056,521	14,642,679	37,371,775	36,038,767
Express	53,996,164	48,423,313	22,300,084	19,871,527	10,879,595	10,403,549	20,816,485	18,148,237
All other transportation	78,460,430	68,892,639	40,744,697	36,653,400	8,112,043	6,946,634	29,603,690	25,292,605
Incidental	72,642,462	62,438,297	38,137,806	32,760,486	9,773,122	9,048,354	24,731,534	20,629,457
Joint facility—Cr.	10,326,494	8,863,114	3,144,220	2,728,863	2,205,583	1,974,506	4,976,691	4,159,745
Joint facility—Dr.	2,612,080	2,227,097	574,715	584,346	239,724	198,004	1,797,641	1,444,747
Railway operating revenues	3,680,469,173	3,154,159,464	1,621,783,178	1,400,572,737	686,946,664	588,160,353	1,371,739,331	1,165,426,374
Expenses:								
Maintenance of way and structures	420,923,930	365,287,439	162,454,222	139,285,571	74,734,861	68,661,191	183,734,847	157,340,677
Maintenance of equipment	713,672,328	619,690,479	323,893,045	273,186,548	131,559,613	118,558,107	258,219,670	227,945,824
Traffic	91,319,875	86,145,914	33,934,594	32,486,257	17,667,853	16,454,213	39,717,428	37,205,444
Transportation	1,276,537,371	1,142,092,026	581,215,295	523,092,154	209,249,202	190,097,915	486,072,874	428,901,957
Miscellaneous operations	32,465,909	27,514,662	14,715,046	12,664,311	3,792,557	3,245,596	13,958,306	11,604,755
General	143,837,448	131,074,306	63,141,979	59,790,117	24,490,902	22,739,743	56,204,567	48,544,446
Transportation for investment—Cr.	4,723,302	3,238,364	652,015	652,670	764,936	363,810	3,306,351	2,221,884
Railway operating expenses	2,674,033,559	2,368,566,462	1,178,702,166	1,039,852,288	460,730,052	419,392,955	1,034,601,341	909,321,219
Net revenue from railway operations	1,006,435,614	785,593,002	443,081,012	360,720,449	226,216,612	168,767,398	337,137,990	256,105,155
Railway tax accruals	286,546,108	222,233,765	122,319,947	92,992,714	59,021,924	46,007,334	105,204,237	83,233,717
Railway operating income	719,889,506	563,359,237	320,761,065	267,727,735	167,194,688	122,760,064	231,933,753	172,871,438
Equipment rents—Dr. balance	86,721,967	79,981,371	39,087,805	37,609,520	3,133,319	3,468,830	44,500,843	38,903,021
Joint facility rent—Dr. balance	36,155,097	32,497,306	19,753,367	18,508,079	4,348,163	3,248,826	12,053,567	10,740,401
Net railway operating income	c597,012,442	d450,880,560	261,919,893	211,610,136	159,713,206	116,042,408	175,379,343	123,228,016
Ratio of expenses to revenues (per cent)	72.65	75.09	72.68	74.24	67.07	71.31	75.42	78.02
Depreciation included in operating expenses	177,382,174	178,819,887	77,396,501	78,285,014	35,044,922	35,054,938	64,940,751	65,479,935
Total maintenance before depreciation	957,214,084	806,158,031	408,950,766	334,187,105	171,249,552	152,164,360	377,013,766	319,806,566
Net railway operating income before depreciation	774,394,616	629,700,447	339,316,394	289,895,150	194,758,128	151,097,346	240,320,094	188,707,951

a Includes charges to Railway Tax Accruals in the total amount of $5,870,438 itemized as follows: $1,516,023 for taxes under the requirements of the Social Security Act of 1935, and $4,354,415 under the requirements of an Act approved August 29, 1935, levying an excise tax upon carriers and an income tax upon their employees, and for other purposes (Public No. 400, 74th Congress).

b Includes credits to General Expenses in the amount of $346,014 on account of reversal of charges previously made for liability under the Railroad Retirement Act of 1934.

c Includes charges to Railway Tax Accruals in the total amount of $52,462,946 itemized as follows: $16,196,199 for taxes under the requirements of the Social Security Act of 1935, and $36,266,747 under the requirements of an Act approved August 29, 1935, levying an excise tax upon carriers and an income tax upon their employees, and for other purposes (Public No. 400, 74th Congress).

d Includes credits to General Expenses in the amount of $8,008,150 on account of reversal of charges previously made for liability under the Railroad Retirement Act of 1934.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.

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